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ESSAYS AND CASES.

ART.—I. *Sketch of the life and writings of* AMBROSE PAREY: By M. STAUNTON, M. D.

AMBROSE PAREY was born at the town of Laval, in France, in 1509. Of his parentage and of his early history we know but little. After the elementary education requisite, he began the study of Surgery, and having passed through the usual course of reading and dissection, he entered as a dresser in the Hotel Dieu, at Paris, and resided during three years in that great school of practical knowledge. His ardent thirst after professional information, induced him while quite young to attend the armies of his country to the field of battle. It was not then customary, as now, for surgeons to be furnished to the armies by government, but each general officer brought his favourite surgeon with him, who was rewarded by that officer in particular, and by voluntary donations from the men. The recompense was precarious, and at best but small; consequently, men of inferior abilities only could be procured. It was nothing but Parey's enthusiastic love for his profession, that induced him to leave the good city of Paris, and expose himself to the difficul-

ties, dangers, and privations, of a soldier's life. He made his first campaign in the army with which Henry II. invaded Savoy, and was in the special employ of the Lord Marshal Montjan, who commanded the infantry.

There was much hard fighting, and Parey saw many and desperate wounds. It was on this expedition that he accidentally discovered that there was no poisoning about gunshot wounds. It must be borne in mind that the use of gunpowder had but lately been introduced into warfare, and that surgeons were utterly unacquainted with the true nature of gunshot injuries.—The tendency to mortification which was found to prevail in them, was attributed to the effects of poison. Some surgeons affirming that the balls, and other missiles were actually poisoned, while others insisted that it was from the powder that these peculiar symptoms proceeded. The idea of poison once being established, no further search was made into the nature of these wounds, and a mode of treatment founded on this idea was practised.

I offer no excuse for the extract which I now make from his works, nor for the very numerous extracts which I shall make. My object is to present Parey as he was. Our principal facts respecting him are to be found only in his own works, and it is better that he should speak for himself.

"Now at that time I was a very raw soldier. I had never seen the dressing of a gunshot wound. It is true I had read in John de Vigo, that wounds made by weapons of fire did participate of venenosity by reason of the powder; and for their cure he commands to cauterize them with oil of Elder, scalding hot. Before I applied the said oil, knowing that such a thing would bring great pain to the patient, I was willing to know first how other surgeons did at the first dressing, which was to apply the said oil as scalding hot as possible into the wounds with tents and seatons, and I took courage to do as they did. At last I wanted oil, and was constrained, instead thereof, to apply a digestive of yolks of eggs, oil of roses, and turpentine. That night I could not sleep, fearing some accident from my not cauterizing, and that I should find those to whom I had not used the boiling

oil, dead empoisoned, which made me rise very early in the morning to visit them, where beyond my expectations, I found those to whom I had applied my digestive medicine, to feel little pain, and their wounds without inflammation or tumour, having rested well. The others to whom was applied the boiling oil I found feverish, with great pain and tumour about the edges of their wounds. And then I resolved with myself never again so cruelly to burn poor fellows wounded by gunshot. See then how I learned to cure gunshot wounds—not from books."

He was with the army of Turin several years. We have a singular testimony of his abilities from an old physician, who, after the taking of the city, always called for Parey when any great surgical work was to be done, for he was delighted with the bold and spirited manner in which this young surgeon operated.

To the Segnieur Marechal Montjan, this old physician said on parting, "My Lord, you have a surgeon young in years, but old in experience and wisdom. Keep him carefully, for he will do you both service and honour." Parey himself tells this tale of his early days with great simplicity, but he adds, with much modesty and sterling sense, "But the good old man did not know that I had lived three years in the Hotel Dieu attending the sick and dissecting the dead."

From this time forward, Parey was engaged in the service of his country under various leaders, until his reputation reached the ears of the king of France, and in 1552 he was appointed surgeon in ordinary to Henry II. and subsequently he served the succeeding monarchs Francois II., Charles IX., and Henry III., as he himself informs us in the dedication of his works to the latter sovereign.

The distinguished reputation he gained as a military surgeon has never been equalled in former or succeeding ages. He was the soul of the army. To the implicit confidence with which they relied on his skill was added an unbounded personal love for his unvarying kindness and humanity and attention to the meanest soldier. When he went forth with them to battle, courage and determination shone in every face. The men felt

that the angel of mercy was in their company. The shout was "What have we now to fear, our Ambrose is with us?"—on one occasion they refused to march till Parey was brought out to them.

At the siege of Mentz, where the chief nobility of the kingdom were shut up with the French army, while Charles V. with one hundred thousand troops lay around it, every difficulty and privation was experienced—surgeons were found in the city, but they were not capable of affording those services to the wounded that their desperate condition required. The sentiment was general that were Parey but with them all would be well. A solemn message was conveyed to the king of France, begging that Ambrose Parey might be sent to them. An Italian captain, for an immense reward, undertook to introduce him into the city, which was closely invested by the enemy; which service he performed with great danger. It was the dead of night when the illustrious surgeon entered. The governor was aroused from his slumbers, the bells were rung, and the trumpets sounded; and when on the succeeding morning he shewed himself on the ramparts, honors were paid to him such as no surgeon ever received. "Mentz was then the bulwark of France, and so perfect was the confidence of its brave defenders in Parey, that it has always been ascribed to the presence of this single man that they kept the city till the gallant army that lay around it perished beneath its walls."*

To exhibit the estimation in which he was held by the soldiery, and the incessant demand that was made on his time for surgical assistance, I will introduce a short quotation from his voyages and travels. "At the siege of Hedin, a council was held, where I was called to know if I would sign, as divers captains, gentlemen, and others had done, that the place should be rendered up. I made answer, that it was not possible to be held, and that I would sign; for the little hope that I had that we could resist the enemies, and also for the great desire I had to be out of this torment and hell; for I slept not either by night or day, by

*John Bell.

reason of the great number of the wounded. When I entered into one lodging, soldiers attended me at the door, to go and dress others at another lodging; when I walked out, there was striving who should have me; and they carried me like a holy body, not touching the ground with my feet, in spite of one another. Nor could I give the necessary attention to so great a number of wounded."

In reply to one of his adversaries who was trying to crush him, he gives a brief auto-biography, which must be considered simply an honest man's vindication of his fair fame: "Moreover, you say you will teach me my lesson in the operations of surgery. This, Sir, I think you cannot do, because I have not only learned them in my study, and by the hearing of many years, the lessons of Doctors of Physic, but as I said before in my epistle to the reader, I was resident the space of three years in the hospital of Paris, where I had the means to use and learn divers works of surgery upon various diseases, together with anatomy upon a great number of dead bodies, as oftentime I have made manifest in the medical school at Paris, and my good luck hath made me see much more; for being called to the service of the kings of France,(four of whom I have served,) I have been in company at battles, skirmishes, assaults, and the besieging of cities and fortresses; as also I have been shut up in cities with them that have been besieged, having it in charge to dress the wounded. Also, I have dwelt many years in this great and famous city of Paris, where, thanks be to God, I have lived in good repute among all men, and have not been esteemed the least among men of my profession, seeing there was not any cure, were it ever so difficult and great, where my hand and my counsel have not been required. Now seeing these things, how can you dare to say you will teach me to perform the operations of chirurgery, since you never went further than your study."

One important object I have before me is to present a rapid view of the improvements made by this great reformer of Surgery, in the various branches of his favourite science. He was decidedly a practical man, and he hesitated not to innovate on the rules of Surgery, whenever he thought innovation would

eventuate in improvement. Much of the violent opposition he experienced is ascribed to the daring manner in which he ventured to modify the various operations.

In injuries of the head, he pointed out much more precisely than any former surgeon, the peculiar circumstances which call for the operation of the trephine, and so clearly did he understand the nature of these injuries, that there are very few surgeons of the present day who would hesitate to follow his indications. He is the first who pointed out the difficulty and danger in trepanning over the frontal sinuses, and demonstrated the mode of operating which we now practice. He made many improvements in the instruments employed in injuries of the head. His exfoliating trephine is a valuable instrument, and might, under certain circumstances, be advantageously employed at present. You will find in his works, an accurate plate and a correct description of that instrument called Hey's saw, for the revival of which, the late Mr. Hey, of Leeds, received so much deserved credit. He describes an instrument like a pair of compasses, one leg of which is constructed so as to cut while the other is placed in a hole in a metallic disc, by which a small segment of bone may be removed without the ablation of so large a portion as the trephine necessarily requires.

In cataract he couched, directing the lens to be kept under the needle while we can say a pater noster, to prevent its rising. He knew the milky cataract, but held the erroneous idea that it would grow hard by age; an idea, however, from which all modern surgeons are not exempt. He operated for Lagophthalmia and Entropeon much as we do. He invented a speculum, or ophthalmostat, as the modern German surgeons more properly call it, very much like those now found in our cases of eye instruments. His practice of opening the eye in hypopeon, though once discarded, is coming again into use. Artificial eyes of silver and gold, he describes to be painted in the encaustic style, and slipped under the lids.

In hydrocele, he practised the use of the seaton. He devised a new operation for incomplete fistula in ano. Salivary fistulæ he understood and cured. In paracentesis abdominis, he can-

tions against the too sudden abstraction of the fluid, as it sometimes proves fatal. In erysipelas, he knew the value of blisters, and has recorded their efficacy in many instances. In one case where the patient was so disfigured that the church excommunicated him as being touched by the finger of God with leprosy, he succeeded in restoring him to health, and of course to the perfect enjoyment of christain privileges. In dentistry, he draws all the parapharnalia of instruments that a modern dentist could need. We can form no very exalted opinion of the surgeons' skill at toothdrawing in his day, for he says, "I would have a toothdrawer expert, and diligent in the use of his instruments, for unless he knows cunningly and readily how to use them, he can scarce so carry himself but that he will force out three teeth at once, oftentimes leaving that untouched which caused the pain."

He is the first who practised cutting the gums of children in dentition, and performed it first on his own child with wonderful success. He describes artificial teeth, and the various modes of fixing them. In ranula, he knew the superiority of the actual cautery over the knife. He invented the obstetrical forceps, which Levret afterwards brought into use, and Levret does not hesitate to ascribe the honor of the invention to Parey.

I would ask with great confidence, is not the principle on which Hunter's operation for aneurism is founded, and which has confessedly been the means of saving hundreds of lives, contained in the following words from Parey: "above all, I advise the young surgeon to avoid opening aneurisms, if they are not very small. Cut the skin above; separate the artery from the surrounding parts; pass a needle with a strong thread at both ends of the wound. Then should the said artery be tied and cut, and the wound treated as a simple wound, letting the thread fall away of itself." In what more accurate words could John Hunter himself have described that operation for the invention of which he has received such unbounded applause?

There are two improvements which Parey made in the practise of Surgery, either of which would have ensured any surgeon a passport to an immortality of fame. I allude to the improvement already mentioned in the treatment of gunshot

wounds, and to the substitution of the ligature for the cautery as a mode of arresting hœmorrhage. He was in very truth the author of the mild practice in gunshot wounds. The success of his practice was not enough to drive the notion of poison out of the heads of his opponents, and he had need of courage and perseverance to fight against the adversaries which this new doctrine raised up against him. Joubert and Chaumet, united in following the steps of this illustrious reformer. But Gourmelin, Dalechamp, and Riolan, opposed the doctrine, and persecuted the man with a bitterness and malice scarcely to be conceived. The truth however prevailed, and Guillemeau contributed much to the triumph of the principles of his master, by adopting and propagating them in his writings.

With respect to the ligature as a mode of arresting hœmorrhage, I must be more particular ; for I must confess it was in investigating the history of the ligature that I became so much enamoured with the character of the unparallelled surgeon in question, that I resolved on adopting it as the subject of an essay.

I have no hesitation in ascribing to Ambrose Parey the honor of introducing the use of the ligature into surgical practice. I know that in taking this ground I may be met with doubts. I have examined the subject diligently and am prepared to give honor to whom honor is due. I am well aware, indeed I shall presently shew, that the idea of tying a string around a bleeding vessel was known to the predecessors of Parey. Parey, I repeat it, introduced the use of the ligature into surgical practice. That man is entitled to the honor of an invention who renders it useful to mankind. Who dares deny to our illustrious Fulton the honor of introducing steam navigation, and yet who does not know the numerous failures that his predecessors experienced in their attempts to make the thing feasible.

Among the old writers we find traces of the ligature, but we want the proof that it was ever practised to any extent ; for the notices we find are too slight to induce us to believe that it was ever a common practice. Moreover I fully believe that when Parey first used the ligature, he did not know that any

one had ever mentioned it. Hear his own words : " I confess freely and with great sorrow that I practised in a different manner from what I now write, after the amputation of an arm or a leg. But why ? I had always seen those who were called on to perform such operations, immediately after the member was cut off, make use of several cauteries as well actual as potential to stop the flow of blood ; a thing very cruel and horrible to relate, and causing four out of six patients to die. I caution young surgeons to let alone such cruelty and inhumanity, the rather to follow my method of practice, which God has been pleased to put in my mind, without my ever having seen it practised, or heard or read of it." (Lib. xii. chap. 35.)

From this it is evident that Parey believed himself the inventor of the ligature. Indeed it would seem so, for the first two trials of it that he made were performed in the presence of his friend Stephen Lariviere, surgeon to the king, and other professional brethren equally worthy of confidence, taking care to keep the cauterizing irons in the fire, ready in case the ligature should prove insufficient. He did not publish the discovery till he was perfectly sure of the results, and then he never used any other mode of practice. It was soon adopted by the most distinguished practitioners in Paris. The Medical College, however, set itself in direct opposition to Parey's doctrine, and condemned his practice as cruel and dangerous. Gourmelin in particular denounced Parey and his new mode of cure with incredible malevolence and envy. I forbear to quote any of the expressions which he and his satellites used against this excellent man. The spirit in which this attack was made is the same with which the crafty and the selfish, at the present day, attempt to crush and bury every thing new and useful.

Parey, secure in the possession of a good conscience, and of universal respect, was in general regardless of the injurious epithets that were applied to him. Sometimes, however, he was touched with the taunts of his enemies, but he usually replies to them in a tone of pleasant irony. " You see now my young master," (the epithet he usually bestows on the learned Professor Gourmelin,) " my answers to your calumnies, and I

pray, if you are an honest man, to review and correct your book, and not to hold young chirurgeons in this error, by reading that you teach them to use hot irons, after the amputation of a limb to stay the flow of blood; seeing there is another means not so cruel, and much more sure and easy. Moreover, if to-day, after an assault of a city where divers soldiers have had arms and legs shot off by cannon bullets, cutlass and other instruments of war, to stay the flow of blood if you should use hot irons, it would be needful to have a forge and much coals to heat them. The soldiers also would hold you in such horror for this cruelty, that they would kill you; as in time past they did one of the chiefest chirurgeons in Rome."

Mention is made of the ligature in Celsus. Galen also enumerates it among the means of arresting hœmorrhage, but by both these authors it is thought inferior to the cautery; of course the ligature is to be found casually mentioned in the works of the long train of servile copyists that followed. But that it was in common use does not appear from any of their writings.

During the course of the debate, Parey found that he was not the first to whom the idea had occurred, and that he had only made practicable what had previously been imagined. Renouncing without any feelings of mortification the character of the inventor, he contented himself with propagating the practice and defending the doctrine. It was one of the chief arguments which his adversaries employed against his practice, that it was modern, unknown to the Greeks and the Romans. He himself announced the fact of its being an old mode, and replies to Gourmelin, who had called him "carnifex" and compared him, because of his dissections, to the public executioner in the following terms: We must have it in mind that he was addressing a jealous, turbulent, and conceited professor. "Come sir, know a little more about your learned ancestors and render greater justice to your cotemporaries. You act the man of learning, and yet don't know that the ligature of the vessels was known to the ancients. You pretend to teach, and yet don't know that it was formerly practised in Italy. You make books

and they do nothing but retard the march of science, by perpetuating the most dangerous errors, and by discouraging those who aim at its advancement ; which of us most resembles the hangman, to whom you have been low enough to compare me, you who talk of nothing but boiling oil and red hot irons, or I who simply tie the vessels with a thread."

The event has proved ! The name of Gourmelin has sunk into oblivion with infamy and disgrace, while the character of Parey shines with increasing splendour.

Gourmelin indeed commenced his attack on Parey in virtue of his official station, as Dean of the Medical Faculty. By their direction he endeavored to suppress the writings of Parey, and in the end prosecuted him before the Court of Parliament. This attempt however failed ; for though the right to give an "imprimatur" to all medical works was vested in the College, yet when Parey appeared and pleaded the cause of his writings before the assembled wisdom of his judges, they considered him above the law, and gave him permission to publish his works, in spite of Dr. Gourmelin and the other learned professors. But Gourmelin found the work so well suited to his taste, that after his official duties had been performed he carried on the war on his own account, and of his own free will persecuted him with the utmost malevolence. In this service he was aided by his pupil Comperat, who was if possible, more wicked, stupid, and ignorant, than his master.

To appreciate the true value of the ligature as a mode of arresting the flow of blood, we should fully understand the method antecedently employed—after an amputation, it was the custom to apply a piece of iron heated to redness to the bleeding orifices of the arteries. By this process an eschar was formed, and the flow of blood arrested. In a vast majority of cases the application was successful for the time. But any one conversant with the functions of the living body, must know that the part was deprived of its vitality, and that it would come away on the 8th or 10th day, and consequently the mouth of the artery would be left open and a fresh bleeding would come on. In some cases however the artery became obliterated by

the stagnation of the blood, and consequently a perfect cure followed. Yet by this mode, Parey tells us that four out of six died from bleeding after an amputation. This however is the most favorable manner in which the actual cautery is employed. But if any one were to see the drawings, in some old surgical book, of the fiery furnace, and the surgeon brandishing a huge red-hot iron and applying it to the whole face of the stump, while clouds of smoke and vapour arise, and were to see the distorted countenance with which the poor patient is represented as shrieking under the intolerable anguish of these horrid tortures, then could be formed some idea of the superior advantage of the ligature.

The large folio which contains the writings of Parey, is a curious compound. In the words of John Bell, "The friends of Parey assisted him in the book, and have mixed up with the precious grain of his surgery, straw, chaff, and stubble. It was suited to the grotesque taste of the age, and was then considered as a very learned work. Had Parey published his cases and surgical operations, the fruits of his experience in one small volume, his fame, like that of Fabricius Hildanus, would have gone down unblemished to posterity. The physicians of Paris, whom he had very unwisely employed to adorn his book, performed it in such a style, that it looked more like the work of the learned college and Dr. Gourmelin and his stupid pupil Comperat, than of the manly and sensible Parey. His observations are scattered through this monstrous folio, and yet that salt so sparingly sprinkled, has preserved the corruptible mass for more than two hundred years. These learned compilers have made his book what it is, a system of anatomy, a compendium of surgery, a dyspensary of drugs, chemical and galenical; a collection of cases, a history of travels and voyages, by sea and by land. By them the text of Parey has been adorned with the most incredible tales, and the margins of his book with the most uncouth drawings of birds and beasts, and comets and monsters, &c."

The book was written in French, but immediately after translated into Latin, and a few years saw it in every language of

Europe. The English edition is the work of Thomas Johnson, a surgeon of some eminence. It appeared in 1634. It was translated from the Latin, so that it has suffered a double translation, and a great loss it is too; for there is a fire and an energy of expression in the antiquated French of Parey, which the Latin copies do not possess, and which consequently is not to be found in the English. I regret that in most of the preceding extracts, I have been under the necessity of following the English copy, having only partial quotations from the French within my reach.

As a man, Parey bore a character the most exemplary. He died at the advanced age of 81, universally regretted. He was at once the chief surgeon and the familiar friend of four successive monarchs of France. Beloved and respected among the citizens, in high favor at court, idolized by the army, we find him still the same honest narrator of his own failings and errors, as when he first made the campaign of Turin, under his old friend Lord Marshall.

With true patriotism he refused to engage in the service of the enemies of his country. The fortune of war threw him on one occasion into the hands of the Spaniards as a prisoner. His first thought was to disguise himself, hoping to escape the enormous ransom that would be required were it known that the chief surgeon of the French king was prisoner. Impelled however by motives of humanity, he tendered his services to a Spanish officer who had been shot through the lungs, and though the case terminated fatally, he shewed such consummate skill, that an offer was made to receive him into the Spanish service. "The chief surgeon" says he, "took me apart, and told me if I would remain with him he would use me very well. I thanked him very kindly for the honor he did me; and told him that I had no desire to do any services to the enemies of my country. Then he told me I was a fool, and if he were a close prisoner as I, he would serve the *devil* to get his liberty. I told him flatly that I would not at all dwell with him." He soon after received his liberty as the reward of curing a distinguished Spanish officer of a varicose ulcer.

Parey was a protestant, a man of high and elevated piety. His usual expression when narrating the particulars of a case, is striking: "I dressed him and God cured him." His whole life exhibited the practical effects of Christian principles. Parey was a protestant, and yet he was the bosom friend of four sovereigns distinguished for their attachment to the established religion of France. Parey was a protestant, and yet he escaped the horrors of St. Bartholomew's day. That odious compound of selfishness, ignorance, and bigotry, Charles IX. preserved him alive, because of the interest he felt in securing to himself the command of his invaluable surgical attainments.

The Duke of Sully in his memoirs does not hesitate to ascribe to Parey's influence the order which was issued to arrest the hand of murder and assassination, after it had devastated Paris for two days. In a private interview Charles expressed himself to Parey as follows: I quote from Sully's memoirs—"The hour is now come," said the king, "when all France shall be of one religion." "Now, by the holy light of heaven, Sire," replied Parey, nothing alarmed, 'I think you will never forget your promise to me, that there are four things you would not force me to do:—to enter again into my mother's womb—to go out in the day of battle—to leave your service—nor to go to mass." The king then took him aside and disclosed to him the troubles with which his soul was disquieted. "Ambrose," says he, "I know not how it is with me, but it goes so heavily, that within these three days I am as in a fever; indeed I am ill in mind and in body; sleeping and waking, the murdered Hugonots are ever before my eyes, with hideous faces, weltering in their blood! would to God the aged and the children had been spared!" The order for stopping the massacre, which was proclaimed on the following morning, was the result of this conversation.

I am sensible that in this attempt to point out the chief merits in the character of Parey, I have not done justice to the subject. A pen more ready, and a tongue more eloquent than mine, would find it inexhaustible.

Had I powers equal to the subject, I would hold him up as the individual in whom the qualities of a surgeon shine pre-emi-

ently bright. I would present him as an operator, audax in securis, timidus in periculis. As an original genius, to whom persecution and opposition were only incentives to perseverance. I would describe him as the zealous and unwearied follower of nature, as the close and accurate observer of the protean forms of disease, as the bold and undaunted asserter of his own opinions, as the venerable patriarch of modern surgery.

What was surgery before the days of Parey! A servile following of the rules of Hippocrates, of Celsus, and of Galen.—As surgery must be founded on the immutable basis of anatomy, that cannot be good surgery which proceeds from men wholly ignorant of it. Hippocrates never dissected a human subject. Celsus is known to have compiled his work De Re Medica, from the writings of others, and he was not even a practitioner. And Galen, too, who lived in late days, undertook a long and perilous voyage to Alexandria, in Egypt, for the sole purpose of examining a skeleton. Here then was a man who preferred the knowledge he derived in the dissecting room and on the field of battle, to the antiquated commentaries of antiquated doctrines. He rose above the level of a surgeon's habitual pursuit. He gained the vantage ground of a higher knowledge. Lord Bacon, in his Novum Organon, speaking of such transcendant genius, well describes the elevated situation on which this great reformer stood, "Prospectationes fiunt a turribus, aut locis prealtis; et impossible est ut quis exploret remotiores interiores que scientiæ alicujus partes, si stet super plano ejusdem scientiæ, neque altiores scientiæ veluti speculam conscendat."

Parey speaks of what he learned from experience. "This I learned not from books," often occurs in his writings. And much did he learn from experience, for he could think with more profit than most men can read. The elementary education of this distinguished man was thorough, and in the usual routine of professional studies he was well grounded, and so was capable of profiting by his experience: for it is by the combination of knowledge and experience, that the medical character is formed. No man ever practised medicine or surgery with advantage

to his patients and with reputation to himself, in virtue of his experience alone. Without sound, scientific knowledge, a medical man is more dangerous than an idiot brandishing a torch. It must not, however, be supposed, that Parey did not read. At his death, his library was found to bear the marks of incessant use, and the copy of Guy de Chauliac, at that period the best treatise on surgery, was found to have been so much used, handled, and worn, that it was in perfect tatters.

ART.—II. *Case of fracture of the Occipital Bone, with Lesion of the Brain, successfully treated:* By JOHN AMENT HALDEMAN, M. D., of Fayette, Missouri.

B. F. Mead, a girl of sprightly disposition, in the 4th year of her age, was kicked on the back part of the head by a horse, on the 15th of April last. As the patient lived five miles in the country, it was nearly three hours after the reception of the injury, before I saw her. On my arrival, I found her covered with blood from the wound, in a state of complete insensibility; respiration slow and laborious; eyes vacant, with dilated pupils; pulse slow, regular, and rather full; voluntary motion completely suspended, without convulsion or spasm; skin florid, moist, and several degrees below the healthy temperature.

On examining the wound, I found the occipital bone extensively fractured and depressed, with an area corresponding to the horses hoof, the lower curvature of the depression being just above the occipital cross, the wound bleeding freely, and the comminuted brain discharging through the crevices of the bone.

From a sense of professional duty, rather than from any hope of success, I determined to remove the portions of bone that were pressing on the cerebrum. Accordingly, having washed away the coagulated blood, and cut off the hair as closely as possible with a pair of scissors, I made an incision two inches long from the middle of the wound to the centre of the semicircular

depression, dissected up the flaps, and removed sixteen spiculæ of bone. On the removal of the bone, the little patient began to manifest some signs of sensibility, indicated by a slight inclination, accompanied with an indistinct muttering call to her mother, who now took and held her during the remainder of the operation. The surface of the dura mater exposed, was about equal to a French crown, extending from the transverse sinus upwards to the junction of the occipital and parietal bones.—The dura mater was entire, except at the lower part of the wound, where it was lacerated to an extent sufficient to admit of a luxuriant growth of "hernia cerebri," which, in the progress of the cure, proved very troublesome. Several large pieces of bone which adhered at the upper extremity, but below were much depressed, were elevated, and suffered to remain, and all healed favorably, although from one piece the external table was removed. The flaps were drawn over the whole of the dura mater which was uninjured, and retained by strips of adhesive plaster. The rest of the wound was dressed with pledgets of dry lint, and allowed to suppurate; the whole covered by a roller bandage.

The incision made for the purpose of removing the bone, healed by the first intention. Small quantities of brain were discharged, and a considerable flow of blood took place at several of the first dressings, and during the cicatrization, numerous spiculæ of bone exfoliated, and were thrown off. The discharge from the wound, at first dark and serous, assumed, in the course of six or eight days, the appearance of laudable pus, but about this time, fungus cere bri, began to appear, which, eventually, proved a source of great difficulty and embarrassment.

Two weeks after the injury, a portion of the inner table of the os occipitis, about as wide, and a little longer than a man's thumb, exfoliated, and was removed without injuring the membrane over the cerebellum. This fragment, which was removed from the centre of the occipital bone, must have extended half an inch below the occipital ridge, and the fact may seem to thow the error of the opinion once entertained, that wounds of this part are necessarily mortal.

The general treatment pursued, was very simple. Active catharsis was kept up for a few days, by salts and senna, and a system of the most rigid abstinence was enjoined, and strictly enforced. No inflammatory symptoms supervened, nor any derangement of the digestive functions, and after the effects of the concussion and compression had subsided, the mental faculties were completely restored, and the patient manifested a degree of sprightliness and intelligence, very unusual in one of her age. The upper part of the wound healed by the first intention; and the lower part began to secrete healthy pus, and to put forth healthy granulations, about the sixth or eigth day. About this time, fungus cere bri began to appear, the difficulty of subduing which, although I was aware that the tendency to this morbid growth, in organic lesions of the brain, was equalled only by the professional attendance necessary to suppress it, far exceeded all my expectations. By the frequent application of pressure with the dry sponge, according to the directions of Professor Dudley,* I was enabled effectually to check, and reduce it. On two occasions, I had recourse to the knife, not so much with view to its entire removal, as to ascertain the relative merits of the two modes of practice. No unfavorable symptoms supervened; nothing that would indicate the impropriety of removing the entire tumour by the scalpel, but as the application of the sponge was less terrifying, and equally effectual, it was afterwards exclusively relied upon. In the course of her recovery, the wound became somewhat indolent, and occasionally required stimulating applications, an indication which was effectually fulfilled by the peroxide of mercury. The wound was perfectly healed in less than three months, without any other untoward symptom.

When we consider the violence, the seat, and the extent of this injury, we look upon the perfect recovery, with the uninterrupted healthful play of the mental faculties, and the entire absence of any unfavorable constitutional symptoms, as a very unusual occurrence; and as such, not unworthy of being recorded. In con-

* Transylvania Journal of Medicine, Vol. I. No. 1.

clusion we will take the liberty of remarking that the influence which this injury may have on the organ of philoprogenitiveness may form an interesting object of inquiry to the phrenologist; and at some future day the development of these organs may convey some useful information, and call forth much ingenuous speculation upon this subject.

Editorial Remarks.—We publish the above case, as well from its interesting character, as from a wish to direct the attention of the younger members of the profession to the subject of injuries of the head generally. From the greater thickness and strength of the occiput, and the proportionate degree of violence requisite to fracture the skull in this part; the vicinity of the spinal marrow, and of the origin of those nerves which preside over the most important functions of the animal economy; and the dense covering of muscles and fasciæ with which this part is covered, injuries of the cerebellum are attended with much more danger than any of the other parts of the brain. The mildness of the symptoms in the present case, may, perhaps, in some degree be attributed to the fact, that from the imperfect ossification of the cranium, the fracture of the occiput, in this instance, was attended with less concussion of the brain, than must necessarily have accompanied so extensive an injury at a latter period of life.

To young physicians we would particularly recommend the study of the surgical anatomy of the head, and the acquisition of that practical skill which is necessary to enable them to meet those emergencies which are perpetually liable to occur to physicians in the country, in which they are compelled to operate without professional advice or assistance. As an additional incentive to the student, in the study of this particular branch of his profession, it may be urged that while the great importance of the brain calls for the most prompt and skilful treatment, in no other case are the requisite information and manual dexterity more completely within the reach of every practitioner, or are the rules of practice, notwithstanding the uncertainty of the result in particular cases, defined with more accuracy and precision.

ART.—III. *Observations on the final cause of Menstruation.* By JAMES C. FINLEY, M. D.

Every thing connected with the subject of generation, has been, at all times, a subject of lively and peculiar interest.—The strong passions which nature, for the accomplishment of her purposes, has implanted in the different sexes, and the tender relations, and the amiable and generous sentiments which arise from the relation in which they stand to each other, have rendered this a subject of inquiry and of curiosity, to every class of society. The student of Natural History would naturally direct his attention to this subject; and some of the most distinguished friends of philosophy, have attempted to illustrate it by their investigations. The inquiry has been pursued with the more avidity, from a delusive hope, that nature has here exposed her mode of workmanship more immediately to our view, and that the veil which she has elsewhere so carefully thrown over her operations, might here perhaps be drawn aside. But she holds out her inducements to investigation, only to elude its efforts, and to lead the bold inquirer aside from the high road of science, into the devious paths of vain speculation. Upon no subject has more labor been bestowed, and upon no subject have the inquiries of the most powerful minds terminated in results so perfectly unsatisfactory. Vain hypotheses, and unfounded speculations, have followed each other in rapid succession, and for a time, served to gratify the inquisitive mind of man with the specious of knowledge, until some new theorist has given currency to a rival system, rather by pulling down the frail fabric of his predecessor, than by establishing one more substantial of his own.

It is upon the attention of the physiologist, and the physician, that this subject has the strongest claims. Upon the former, on account of the powerful influence which the organs of generation exert over the whole animal economy: an influence, which, commencing at a very early period of life, and at a time when they are so little developed, as scarcely to convey any idea of

the important office they are afterward to subserve, is secretly modifying the character, form, and disposition of the sex, and imparting to each those powers, sentiments, and feelings requisite to qualify them for the part they are afterward to perform. These organs exert, both on the male and on the female, a very powerful influence, but of a very opposite kind. To the frame of the former it gives the structure, and imparts the vigor and strength, necessary for the part he is to act in the bustling and active scenes of life. They give to the latter that structure which is best adapted to parturition, and develope those organs which must supply nourishment to her offspring.

Their influence on the moral, active, and intellectual powers is equally striking. In both sexes they tend to refine and improve these faculties. To the one they give courage and enterprise, combined with tenderness and generosity; to the other those interesting manners and amiable virtues, which are requisite to win the affections and soften the cares of her husband, and to provide for the comfort and to cultivate the moral and intellectual faculties of her children.

To the attention of Physicians, this subject is recommended, by the fact that the important office these organs are destined to subserve in the animal economy, their great sensibility, and the numerous sympathies by which they are connected with the rest of the system, give them a predominating influence, especially in the female sex, through a great period of life, and prove so frequent an avenue of disease, as to call for the exercise of professional skill, under circumstances calculated to elicit the most generous feelings of our nature.

A few physiologists, of late years, warned by the failure of their predecessors, have pursued their researches in the true spirit of modern philosophy, and have, perhaps, acquired all the information that simple observation can convey. Much, however, remains to be done in the way of analogical illustration, and we have no doubt that in future, much light will, in this way, be thrown upon the obscure physiology of these organs.

Under the influence of a feeling of this kind, we are disposed to offer some remarks upon the uses of menstruation. The ill

success of our predecessors is certainly a very powerful reason why we should tread in their steps with caution, and confine ourselves to the surer regions of experiment and observation, rather than enter into a field where we can be guided only by the uncertain light of analogy; but the efforts of many of the most illustrious ornaments of science will sanction our efforts, and, if it should be necessary, mitigate the mortification of a failure. The speculations in which we are engaged are not indeed calculated very directly to advance the interests of the healing art; but truth is always desirable, and correct views, at once prevent the mind from wandering in pursuit of error, and prepare it for those exertions which are more immediately connected with the exercise of professional duty.

This periodical discharge is peculiar to the human female. Of the numerous and unsatisfactory hypotheses which have been formed in explanation of its final cause, we shall notice but three.

Galen supposed that after the completion of the growth of the body, the fluids no longer required for the completion of the organs, existed in excess, and that nature was supposed to keep up this supply in the female sex, as a provision for the nourishment of the foetus. In order, however, to avoid any injurious consequences from plethora, an outlet was to be provided until gestation should appropriate the surplus fluids to their proper objects. This outlet is generally found in the vessels of the uterus, yet when nature is prevented by accidental circumstances, from relieving herself in this manner, the vessels of other surfaces may assume a vicarious office, and the system be relieved by a discharge from the breasts, &c. &c. Numerous facts, so well authenticated as to leave no room for doubt, do indeed establish the fact, that discharges of this nature, observing the regular menstrual period, do take place, but they are comparatively so rare, that they are to be looked upon rather as anomalies, which the present state of physiological science does not permit us to explain, than as affording any substantial support to this opinion. But we will defer our objections to this opinion, until we come to the consideration of the views of Dr. Cullen.

This author advanced an idea very analogous to that of Galen, but founded on the supposition of local, instead of general plethora. As the growth of each organ in the body is successively completed, he supposes that the excess of fluids thus left in the system, is diverted to other organs. The uterine system, coming last to perfection, is left in a plethoric condition, which is relieved by an effusion from the mouths of the vessels opening upon the surface of the uterus, by an effort of nature to which we have many analogies in the history of the diseases of the animal economy. The discharge thus produced to relieve a particular contingency, is afterward kept up by that tendency to periodical returns, which we meet with in many of the animal organs, and especially in the uterus.

The errors of both these opinions, we think, may be shown by a very similar train of reasoning.

1. Menstruation is not a diseased, but a healthful action of the female system, designed to answer some important indication in generation, and so essential to this process, that impregnation may be said never to take place when this is deranged ; and hence it is guarded by nature with such peculiar care, that the slightest derangement and irregularity in this respect, throws the whole system into confusion. It sympathizes also with the system in the deranged functions of the other organs, and is very frequently suppressed when the other secretions are suspended, although a very plethoric condition of the system may prevail ; and, on the other hand, when the system is worn down by some wasting disease, it frequently continues, provided the general integrity of the functions of the organs be preserved, until the powers of life are nearly exhausted.

2. It cannot depend upon plethora, because at the very period it makes it appearance, and for a considerable time afterward, the whole system is growing with great rapidity, and in consequence of the new appetites, passions, and emotions, which are at this time called into action, is subjected to a wear and tear unknown at any other period of life.

3. Lastly, the whole history of the animal economy shews, that in its healthful condition, there is a strict connexion be-

tween its wants and the supply of nutriment. If an additional supply becomes necessary in consequence of any accidental drain, or for the growth of an organ, the nutritive vessels are temporarily called into increased action, to meet the demand; and if the change produced in the system be not so great as to induce a state of disease, when the necessity for this increased action ceases gradually accommodate themselves to the change of circumstances. If, therefore, symptoms of plethora occasionally appear at the period of puberty, it is not that they attend as a necessary consequence, upon the completion of the animal growth; but that the nutritive vessels, called into unusual activity to meet the present wants of the system, occasionally overact their part; or that the increase of sensibility and vascular action, which invariably attend the growth of the body, render it, at this time, peculiarly liable to disease.

The opinion of Mr. Charles Bell is, we think, entitled to more credit. He supposes that a periodical excitement takes place in the system, for the purpose of maturing the ovum; and that the flow of blood is intended to allay the excited state of the uterine vessels. This opinion, which is strengthened by the previous symptoms, and by dissections, derives additional confirmation from other considerations.

In the lower orders of animals, the union of the sexes succeed the excitement of the uterine system almost invariably, and the regular courses of events indicated by nature, follows each other in uninterrupted succession. If this should not be the case, the short periodical excitement of the organs, followed by long intervals of perfect quiescence, affords but a slight opportunity for structural derangement to take place. In the human family, the uterine system is kept in a state of almost continual excitement, while the moral considerations, which result from the social condition in which it was evidently the design of the Creator that man should be placed, prevent that train of events by which the evil consequences of this excitement might be obviated. Hence, in females that are barren, and more especially, in those that live in a state celibacy, a foundation is laid for various structural diseases, cancer, &c. &c. Nature, both

in the natural and moral world, frequently employs agents to modify the excessive action of her instruments, and the animal propensities arising from the healthy action of the generative organs, proceeds so nearly to the extent of disease, that an agent of this kind may be considered as far from being unnecessary. Above all, there is a very close analogy between this discharge and the remedies to which, on similar occasions, nature usually resorts.

To this hypothesis, for, in the absence of any direct and conclusive evidence, it can be regarded only in the light of an hypothesis, we have no satisfactory objection to offer; and as its admission will not militate against the view we have taken, we shall avoid its further discussion, simply remarking, that we consider the suggestion as entitled to more consideration than any that has hitherto been offered.

This discharge, as we have already remarked, occurs with too much regularity in almost every condition of health, is too intimately connected with the fruitful condition of these organs, and is preserved by nature with too much care, to be looked upon either as the result of disease, or as destined to perform a secondary part in preparing the uterine system for the performance of its functions.

We shall, therefore, proceed to inquire into the peculiarities which characterize the process of generation in women, with the hope of finding some use for this discharge, more in accordance with the importance which nature has attached to it.

Upon inquiring into the manner in which the fœtus in viviparous animals is connected with the uterus of the mother, we find, that among many individual peculiarities, three general modes of union may be observed.

1. In the first, the membranes enveloping the ovum, have an immediate vascular connexion with the uterus, without the intervention of a placenta.

2. In the second, the ovum is connected to the uterus by means of one, or more placentæ, the fœtal and maternal parts of which are distinct.

3. The third variety is met with in man and the monkey tribes, in which is formed a *deciduous membrane secreted by the vessels of the internal surface of the uterus* that, with the whole placenta, is thrown off at parturition.

In this peculiarity we are disposed to seek for the explanation we have in view. All the mucous membranes, under a certain grade of irritation, appear to have the power of secreting a membrane of coagulable lymph imperfectly organized. In the present instance, the functions of the organ require that a membrane should be formed with a more perfect organization, and under a degree of irritation that should not exceed the healthy grade. For this purpose, a set of vessels would appear to be necessary, that would open readily upon the surface of the uterus, and secrete a vascular and organized membrane, under that slight degree of irritation which the local determination consequent upon conception would produce.

It is peculiar to the females of our species, that they continue constantly in a condition favorable for conception, during the whole period from purberty to the time that the power of reproduction entirely fails. In order that these vessels may not suffer (as other parts of the vascular system do when their action is not immediately called for in the system) from the inactivity in which they are often kept, in consequence of moral obligations and other circumstances of an accidental nature, it would appear to be necessary that they should occasionally be called into exercise. This discharge we suppose to be the means to which nature has recourse for this purpose.

In confirmation of this opinion, we find that the uterus, in a state of disease, frequently forms this membrane under a state of irritation so slight, as to produce no general febrile action in the system. Dr. Eberle, indeed, supposes that this adventitious membrane is always the result of irritation. Granting this to be the case, the irritation, since it is frequently entirely local in its character, must be very slight ; and if a greater degree of febrile action occasionally attends, it may rather be attributed to the the disturbance produced by the derangement

of the functions of so important an organ as the uterus, than to the inflammatory character of the local disease.

If it be inquired why this discharge is peculiar to the human family, and is not met with in other animals that secrete the deciduous membrane, we reply :

1. All other animals have periodical seasons when their organs are prepared for conception. Conception and gestation almost invariably follow this state of preparation. If accidental circumstances should prevent this, they relapse again into their former state of inactivity, until the periodical excitement again returns. Thus, even when their natural habits are subverted by domestication, their generative system through a great portion of the year, is as completely dormant, as before puberty ; and in many animals,requires as remarkable a development to prepare it for conception, as takes place at that period. May we not, therefore, reasonably suppose, that the different condition which Providence has imposed upon woman, would require a corresponding modification in the structure and physiology of these organs.

2. To those who are dissatisfied with this explanation, we would remark, that the structure and organization of animal life is more complicated, in proportion as we advance in the scale of animated nature. Nature has given to most animals sufficient powers of self preservation, and reproduction, to enable them to exist comfortably in the sphere in which she has designed them to move, and to continue their species. Beyond this, she has been sparing of her gifts. Accordingly, we find that those which possess organs calculated to enable them to preserve their existence in one element, are either destitute of those organs which would qualify them to move in another, or possess them in a very imperfect condition. Those animals whose imbecility exposes them to the attacks of the more rapacious species, bring forth a numerous progeny after a short and easy gestation. In those that are protected by their size, strength, or courage, the perfection and birth of the fœtus is accomplished by a slower and more laborious process. The intelligence of man gives him a very great superiority over

other animals, and hence in conformity with this universal law, his organs, except where a more perfect organization is necessary to develop, or subserve his intellectual character, are comparatively imperfect. This imperfection is peculiarly to be witnessed in those organs, which are concerned in the reproduction of the species. The very structure and position of the uterus exposes the female to many dangers and inconveniences in gestation, from which the inferior animals are free ; parturition is more painful and hazardous, and as an extension of the same principle, the infant is more helpless, continues longer in a state of dependence, and requires more education to enable it to provide for its own wants, than we meet with in other animals. Why, therefore, should we be surprised if the same imperfection should attend this part of the system, in its unimpregnated state; and if in preparing these organs for conception, and in preserving them in that condition, the female should be subjected to inconveniences from which other animals are exempt.

We have taken for granted, throughout this essay, upon the authority of Mr. Lawrence, that this evacuation is not met with in the monkey tribes. Mr. L. states, that the popular belief, which has been countenanced by some distinguished physicians, has risen from the fact of the peculiar liability of these animals to uterine hemorrhage. Either opinion, however, is favorable to our view, inasmuch as it tends to show that a provision has been made for the secretion of the decidua, by a set of vessels, larger, and opening upon the surface of the uterus more readily, than occurs in other animals.

ART—IV. *Case of Epilepsy, communicated by* J. M. STAUGHTON, M. D. *Late Professor of Surgery in the Medical Department of the Columbian College.*

In the summer of 1827, a gentleman of about fifty-three years of age and of sedentary habits, as he was walking from Washington City to Georgetown, suddenly fell to the ground

and was violently convulsed. After a few minutes he came to himself, and walked, not without much difficulty, to his lodgings in Georgetown, a distance of about half a mile. He was put to bed and shortly after had another convulsion, which was followed by great exhaustion, during which the contents of the bladder and rectum were involuntarily discharged. I was sent for, and saw him that evening. I found him very weak from his convulsions, his pulse was full and soft, and there was nothing to indicate the slightest apoplectic tendency. His mind was unimpaired and though he confessed himself much alarmed, coolly reasoned on the consequences. He was a man of great regularity in his mode of life, and his tongue did not seem to indicate that the epilepsy was of a gastric origin ; after directing a stimulating pediluvium, I left him. The next morning he was better, sitting up and trying to write. He found that he could not command the motions of the right hand, and shewed me with great concern the almost illegible lines that he had written. This gradually vanished and in a few days he was able to walk over to my house, a distance of two miles, thinking himself perfectly recovered. A week or ten days after this, as he was walking along Pennsylvania Avenue, another convulsion prostrated him. He was carried into an adjoining house and some one bled him. The venesection appeared to cause a repetition of the convulsion. He was put to bed and a man was hired to attend him. When I saw him the next morning he addressed me by name, then suddenly turned on his left side and the whole right side of his body underwent a powerful convulsion which lasted about a minute and then gradually abated. From the consequent debility he slowly aroused, and entered into free conversation, which was arrested in about ten minutes by a similar convulsion, lasting much about the same length of time as the preceding, and which left him much in the same state. His attendant told me that these convulsions had succeeded each other during the whole night at intervals of ten or fifteen minutes and that they resembled those that I had first witnessed. The patient's pulse was weak, and small, and quick. The skin, tongue, and

countenance were natural. The bowels were constipated; during the convulsions, the face was frightfully distorted on the right side and the eyes wildly rolled in various directions, the lids remaining wide open. There was a regular motion of the right arm at the commencement of each convulsion by which the thumb nail was brought over the forehead, ploughing up the skin and keeping the face bloody. I ought to mention more particularly that the convulsive action was confined to the right side of the body, the left remaining perfectly in a quiescent state, with the muscles flaccid, resembling in a very striking manner the effect of the *strychnos nux vomica* in Hemiplegia.

Without giving minutely the daily history of the case, I will simply state that these convulsions continued at the same intervals for nine days; his bodily vigor sinking under their exhausting effects, but his mind continuing calm and collected in the intermissions. He talked unreservedly with me on his temporal affairs, and was perfectly sensible of his dangerous state. He requested me to write to his sister in Corsica, of which island he was a native, to inform her of his disolution when it should occur. His vital energies were evidently giving way and I looked forward to his certain departure.

He was a man of highly accomplished education, a graduate of one of the most distinguished Universities of Italy, and spoke the Latin, Italian, and French with great fluency. It is very singular that from the moment of his attack he utterly forgot what little of English he had learned during his residence in Great Britain and America, nor did he ever recover it. Yet he retained a facile remembrance of the languages he had learned in his boyhood.

Notwithstanding I made use of all the therapeutic means which are universally employed in similar cases, and though I had the benefit of the advice of Drs. Mechlin and Borrows, of Washington, I am free to confess my belief that our remedies were of very little service, and that his recovery is to be ascribed to the powerful efforts of his system.

For he did recover, and the only vestige of his disease that remained was slight hemiplegia on the right side, which did not

materially interfere with his walking. This, too, gradually wore off, and when, some months after, he left the city, a very slight halt in his gait indicated the relics of his paralysis.

A short time before he left Washington he communicated to me confidentially the cause of his disease, with a request that after his death I would publish his case. He is since dead in a distant land, and I now comply with his request in presenting his history to the Profession. From what I can learn he fell a victim to the baleful cause which I proceed to mention. Ecclesiasticus fuit, et regulis ecclesiæ suæ a matrimonio prohibitus. Per complurimos annos assuefactus fuit libidinis suæ de masturbatione solatium præbere.

I am aware that this is no new case. The writings of Tissot Broussais, Fournier, and others, present many interesting cases of this character.

This miserable victim of a habit, unfortunately but too common, ascribed the failure of his memory and of his health to this cause, and bitterly did he lament that the institutions of his sect prescribed a life of celibacy which so illy corresponded with his passions and social feelings.

ART.—V. *Remarks on the influence of Acids in promoting Salivation.* Communicated in a letter to DR. DRAKE.

DEAR SIR.—I observed in the April No. of the "Western Journal of Medical and Physical Sciences," an article from the North American Med. and Surg. Journal, noticing a letter of Dr. Harty, of Dublin, in which it is stated that the use of the sulphate of quinine accelerates mercurial salivation; and frequently induces calomel to excite ptyalism, when it probably would not otherwise have occurred.

In reflecting on this subject, I am inclined to think that Dr. Harty has not made the requisite observation on the use of the article. I have been in the practice of using the sulphate of quinine pretty extensively for several years, during the admin-

istration of calomel, and have observed no such effect as that of accelerating mercurial salivation. Besides, Dr. H. has not stated *his manner of preparing and exhibiting the quinine*, which is certainly very important in forming an opinion on the subject. If Dr. H. dissolved the quinine in water, by adding a small quantity of diluted sulphuric acid, as is a very common practice, ptyalism, when calomel or any other preparation of mercury had been used, would be a very probable consequence, as I have often witnessed; but the salivation in this case, would be owing to the acid in the mixture, and not to the quinine.

I have observed for a number of years, that acids of any kind will cause calomel to affect the mouth, when no such effect would have resulted from its use, had the acids been entirely avoided.

Bilious remittent fevers prevailed extensively, during the summer of 1828, in this place and the surrounding country, and my brother and myself were in the daily use of calomel as a cathartic, and quinine as a tonic, in the later stages of the disease; yet we had not more than five or six cases of sore mouth, and these were brought about by the use of acids—lemonade, vinegar, or soda powders, in which there was an excess of acid, or pickles, &c. We are in the practice of giving calomel liberally, without having any thing like ptyalism in any case where we do not wish to produce it, and can get our patients rigidly to follow directions.

I am of opinion, that in remittent fevers, mercury, when its action is determined to the glands about the mouth, becomes, instead of a salutary remedy, *a local irritant.* If this opinion be true, a salivation ought not to be produced by mercury, in this disease, unless we feel confident that we can produce, at the same time, *a mercurial fever*, which shall supercede and take the place of the original disease. Even in this case it is questionable, whether the indication may not be better answered by a different course. I have long since adopted the opinion, that *we may, with proper care, have all the advantages which mercury can afford, without its inconveniences*, in every description of fever calling for its use. With these views, I have prescribed it almost habitu-

ally, both as a cathartic and alterative, only using the precaution to direct my patients to avoid every kind of acid. The prejudices, and almost insuperable objections which many people have to the use of calomel, seem to have had their origin in the inconveniences on salivation. These prejudices frequently deprive us of the use of this invaluable article: an article which we can use when scarcely any other can be retained in the stomach; which, when combined with opium, has no superior in calming an irritable stomach; which will change the secretions of the liver, and chylopœtic vicera, from a morbid to a healthy kind, more certainly than any other in the materia medica.

Humanity requires that we should inflict no more pain, nor subject our patients to no more inconvenience or suffering, than the necessity of the case absolutely demands. Why should we then subject our patients to the pain and inconvenience of a mercurial sore mouth, when we are able to cure them without it; especially if we can obtain all the remedial agency of mercury without salivation?

If avoiding every kind of acid during the use of mercury, will enable our patients to escape salivation, by reversing the rule in those cases in which we wish a speedy salivation, we may almost always succeed in producing this effect, by giving acid drinks freely, and at the same time washing the mouth with vinegar, or other acids. This I have found true in those *few* cases in which I have had occasion to try it. And I have very little doubt that other practitioners, after a fair trial, will find it generally the case.

I have been led to make these remarks, in consequence of not being able to recollect any notice of the effect of acids, when given along with, or shortly after the use of, calomel.—Should you think them of any use to the profession, you are at liberty to publish them. Very respectfully, your friend,

THOS. TOWNSEND.

Massilon, Stark Co. Ohio, Sep. 16th, 1830.

ART.—VI. *An account of some sporadic Cases of Apthous Sore Mouth, occurring in Pregnant Females, and attended with some unusual Symptoms.* By DR. JOHN COOK BENNET, of Barnesville, Ohio.

Believing it to be the duty of every physician, to record and report all diseases attended with malignant or uncommon symptoms, I proceed to give you an account of a very troublesome disease, several cases of which have lately fallen under my observation, and were attended with a degree of obstinacy and severity, that I was perfectly unprepared for by any thing I had previously seen or read.

The subjects of the disease were all females in a state of pregnancy. Whether this circumstance had an influence in predisposing to the disease, or whether the association was merely accidental, the number of cases I have met with does not authorize me to determine. The first symptom which attracted the attention of the patient, was an immoderate flow of saliva, as profuse as if the salivary glands were acted upon by mercury. The saliva soon became so offensive to the patient, as to keep the stomach in a state of continual irritation, and in the more severe cases, to produce anorexia, and occasional vomiting. The tongue soon became coated in the centre, and of a fiery red upon its margin. In a few days, small white vesicles appeared on the tip and edges of the tongue. These vesicles soon extended over the whole surface of the mouth, and were so much disposed to ulcerate, that deep and troublesome sores were formed, so very irritable that scarcely any thing could be taken into the mouth without causing extreme pain. The disease soon extended to the alimentary canal, its progress being marked by a burning sensation in the stomach, with tenderness on pressure, flatulence, acidity, and disposition to vomit, in some instances so great as to reject with violence every thing received into the stomach. The administration of cathartics produced watery evacuations, frequently combined with membranous flakes of coagulable lymph, or with streaks of blood, and in the

advanced stages of the disease, with pus. The irritation in some cases appeared to extend to the schneiderian membrane, as both the taste and smell were very much impaired.

The febrile symptoms were very slight in the early stages of the disease, except in one case, in which they ran high. When, however, the patient became reduced from the salivation, pain, and loss of sleep, the vascular system partook in the general irritability. The salivation and the apthous condition of the mouth continued about four months, and then gradually subsided. Upon one case, a troublesome dysuria attended.

In the treatment of the disease, mild purgatives, principally castor oil and magnesia, were used at the commencement, and occasionally, as the symptoms required, throughout the disease, and were almost the only remedies that proved of decided utility. The various antacids were used with very little advantage. The great irritability and soreness limited us very much in the use of gargles. The aqueous solution of opium, produced temporary palliation ; the various astringent gargles were tried withot affording relief. The most advantage was derived, in the advanced stage of the disease, from a weak preparation of muriatic acid. The above with the occasional administration of an anodyne, as the severity of the pain and the irritability of the system required, was the outline of the remedial treatment pursued. The diet of the patient at the commencement, was composed principally of mucilaginous drinks, and in the advanced stages, to these were added light articles of farinaceous food.

Five of my patients recovered, and one died. I am not aware that any mode of treatment was materially instrumental in shortening the disease. It appeared obstinately to run its course, in spite of our remedies, continuing about four months in each case, and then gradually subsiding.

REVIEWS AND BIBLIOGRAPHICAL NOTICES.

ART. VII. *A Practice of Physic, comprising most of the Diseases not treated of in "Diseases of Females," and "Diseases of Children."* By WILLIAM P. DEWEES, M. D. Adjunct Professor of Midwifery in the University of Pennsylvania: In two volumes. Philadelphia, Carey & Lea, 1830. p. 600.

"We live in an age in which the fear of *debility*, causes a prodigal use of *stimulants*; and this too often, at the expense of health, and the life of the patient."—*Broussais, Phleg. Chron. vol. ii. p.* 82.

"Had I *dared* to bleed freely, and especially by means of leeches, the patient might have been saved; but I was afraid of *debility*. But, who is to blame!"—*Ib. p.* 178.

The Profession have so long been looking for some general work on the Practice of Medicine from the Philadelphia School, that we at length hail with pleasure, the work of Dr. Dewees. His accuracy of observation, his judgment, his lucid descriptions, are surpassed by very few. His copious manner, which pursues a subject throughout all its ramifications, and leaves nothing to be supplied by the judgment or imagination of his reader, may, indeed, be considered as an objection by many; but upon this point *we* are not disposed to cavil with him. The talent for writing rules of practice, concise and comprehensive, is given to few, and the great majority of readers are better pleased, and more instructed by copious illustrations and details.

Dr. Dewees has not pretended to give a very perfect arrangement of diseases, nor a complete view of the state of medicine at the present day. 1. He has omitted the diseases of which

he has already treated in his former works. 2. With still more propriety, we think, he has omitted those diseases which have not fallen under his own observation. Every manual of medicine is, at present, burdened with unsatisfactory accounts of the symptoms and treatment of diseases, which the authors have never seen ; and of which they cannot consequently be expected to offer any thing, original or interesting. The shades of disease are marked by tints of too delicate a shade, to admit of their being faithfully described, by persons who know them only through the reports of others ; and such is the abundance of writers in every department of medicine, that every branch of the profession may be safely left to persons acquainted with the subject from personal observation. 3. Dr. Dewees has very wisely omitted such diseases as his own experience has taught him no successful mode of managing. Of this kind are jaundice, hydrophobia, and almost all the neuralgiæ, &c. together with some others, the treatment of which is not yet settled. After making these deductions, he has selected but about thirty-five out of the numerous diseases which flesh is heir to, as the subject of his work. As the work is designed to be of a popular character, principally for the use of students, we are disposed to consider this as a very decided improvement. These few diseases comprehend, in their treatment, almost all the principles of the science. It is of great importance to the student, on commencing the study of his profession, to have his attention confined to a few diseases, in which he may have distinctly placed before him, the prominent principles of the profession, that he may afterward apply to other forms of disease, when a more improved judgment has taught him to distinguish what is of practical utility, from that which is interesting merely, as matter of general professional information.

But the narrow limits assigned us, require us to proceed to the examination of the work. More than fifty pages of the work are devoted to "General Observations," comprehending every thing that can conduce to the benefit or comfort of the patient, even to the minutest regulation that can affect his conve-

nience—a part of professional duty that is frequently left to the discretion of attendants, to the great detriment of the patient, and the serious injury of the reputation of the physician. Nothing tends so strongly to endear the physician to his patient, and, by securing his confidence to command the regular administration of remedies, as an assiduous attention to those minute circumstances, and a careful anticipation of those little sources of discomfort, which are too often looked upon as beneath the dignity of professional science. He who would be a successful practitioner of medicine, must add to the most extended general views of his profession, the constant habit of minute observation. Sickness always has a tendency to bring the firmest mind down to the feelings and sentiments of childhood; and hence physicians of the slighest qualifications, with nothing to command either respect or admiration, frequently not only secure the confidence of the public, but command a degree of success that many of their superiors might be proud to equal. But our limits permit us to make no extracts from this part of the work. We shall therefore take leave of it, by recommending it to the diligent perusal of the young practitioner, with an assurance that his time could not be more profitably employed.

So far as the theory of fever is concerned, he gives us to understand that he is an unqualified Broussaian; considering it "as settled," "that in all the supposed varieties of fever," the lining membrane of the stomach is constantly found, after death, in a state of inflammation, and that all the phenomena of fever depend upon the altered condition of this organ, and consequently that all the remedial measures are such, and such only, as are calculated to diminish or remove it. And farther, "that every thing which has not this tendency is not only useless, but is injurious."

Practically, however, the author is not so far a Broussaian as to prevent him from attempting to supplant the pathological state, by the liberal administration of purgatives, and occasionally of emetics.

Chapter I. treats of the remedies for fever in general. The following remarks appear to us to be judicious:

"Fevers of every denomination, be their types what they may, frequently have sickness of stomach as an attendant. This nausea, or it may amount occasionally to vomiting, is always attributed by the attendants upon the sick, to "*a foul stomach*," and in their opinions, decidedly calls for an emetic. This, nine times out of ten, is an error; for this sickness, &c., only points out a state of irritation of this organ; and so far from its being relieved by an emetic, is almost certainly aggravated by it. In such cases, cathartic medicines of a moderately active kind should first be given; and if these do not afford relief, try, 2d, the direct application of such remedies as are known for their efficacy in such cases; and 3d, if these fail, counter-irritants must be used." p. 73.

For the first indication he prescribes grain doses of calomel, repeated every hour until eight grains are taken, to be followed, if necessary, by a few teaspoonsful of magnesia and enemata. For the second, small quantities of cold gum arabic water, milk and water, or what is almost certainly successful, the carbonate of soda in combination with gum arab., ol. minthæ, and seltzer or common water, to be taken every half hour or hour, as the symptoms may be more or less urgent. For the third indication he recommends cupping or leeching, sinapisms, and if the sickness be obstinate, a blister.

While on the subject of emetics, we will express the opinion, that besides inflammatory irritation, irritability of the stomach may arise from a want of tone, the consequence of sympathy with that state of the surface produced by the chill. In both these conditions, although emetics are certainly hazardous, yet their great efficacy in intermittent fever, may render us anxious to avail ourselves of their use.

Under the first condition, if the irritation be moderate, the emetic may be rendered safe by general or local bleeding. And under the second, by the liberal use of the vegetable diaphoretics, aromatics, opiates, or camphor. If their use be at all doubtful, antimony should be avoided, or at least be combined with ipecacuanha.

For bleeding in fever, Dr. D. may be considered as a very general, almost a universal, and we think, a very judicious advocate, and his directions in different parts of the work are very explicit. The quantity taken is not to be determined by oz.

but by the effect produced upon the system. In certain epidemics, as well as in certain constitutions, bleeding is, by many physicians, proscribed entirely, because it cannot be used with as much freedom as we are in the habit of employing it upon other occasions. Now we can see no reason why this, like other remedies, should not be accommodated to the state of the system; or why a patient may not derive benefit from the loss of six or eight oz. of blood, who would sink under the loss of twenty oz. The reasoning of Rush, on this subject, if not strictly true to the extent he carries it, at least merits attention; that if bleeding in old and debilitated habits, demands more caution, it is more imperiously called for by the fact that their frail and debilitated organs more readily give way to the violence of inflammatory action. We feel convinced, that from the prevalence of a prejudice of this kind, much suffering has been permitted to go unrelieved, which might have been avoided by timely and judicious depletion.

Under the head of Sweating, Dr. D. combats the very prevalent idea, that the efficacy of the process is in proportion to the quantity of fluid evacuated by the skin.

* * * "In a number of instances we have known an overwhelming sweat to be followed by a hard, rigid skin, and without the smallest diminution of the force of the arterial system, or the least abatement of the distressing and threatening symptoms. On the other hand, we have seen the whole system tranquillized and relieved by a gentle moisture breaking out spontaneously, or when produced by the exhibition of some proper remedy for this end. We may therefore lay it down as an invariable rule, as far as our experience justifies us in the assertion, that in no instance of fever, simply so called, does profuse sweating relieve as much as gentle perspiration. It follows, then, that this evacuation has been in too many instances indiscreetly urged.

In employing remedies with a view to promote perspiration, (for this is all that should be attempted,) we must regard with attentive care, 1st, the period; 2d, the state of the body as regards temperature; and 3d, the agents themselves.

The period of the febrile paroxysm at which we attempt its solution by this remedy, is a matter of great moment; we must, therefore, not commence our operation in the cold stage; nor should we be more successful at the formation of the hot stage, nor at its height, unless proper evacuations have so much reduced the vigour of the pulse, as to render the operation of the medicine probable; or unless the fever itself

is of so mild a grade, that an impression can be made upon it by the exhibition of diaphoretics. It therefore follows, that we should not exhibit any one of this class of medicines while the pulse is full, hard, and frequent—for were we to do so, we should not only be foiled in our attempts, but have the mortification to see every symptom aggravated; for there is a "sweating point" of the arterial system, as well as a "sweating point" of temperature." p. 77—78.

It is very necessary to attend both to the period of the paroxysm, and the period of the disease; yet his prohibition of diaphoretics in the cold stage, is certainly too general. Diaphoretics, in the practice of every practitioner much conversant with intermittent fever, have proved successful in breaking up the disease.

The temperature of the body favourable to perspiration, he thinks is fixed too high by Dr. Alexander, at 108, and that 100 or 102, is nearer the truth; and hence when the temperature is above this point, diaphoresis will best be promoted by reducing the temperature.

Among the agents for producing perspiration, he mentions opium in the following language:

"If there be but a moderate degree of vigour in the pulse, or if it be soft, opium is a highly important drug. This medicine seems to merit a decided preference in all the more protracted forms of fever, or where the powers of the system have been pretty much expended; and in all those of weak action, even in the commencement. The proper time for its exhibition is at the early part of the hot stage. It should be given in such quantities, and at such intervals, as to make a decided impression; but not so much as to have its narcotic effects predominate; nor should the frequency of exhibition be such as to subject the system to this part of its influence. We therefore hold it wrong to give it, either in such a dose or doses, as will subject the brain to its anodyne powers; for whenever we induce this tendency to coma, we unnecessarily prostrate the system." p. 79—80. * * *

We shall permit him, however, to specify its application. Under the head of Intermittent Fever, after alluding to the practice of Dr. Lind, of giving opium during the hot stage, he remarks:

* * * "In this particular district of country we are of opinion, it should be given with caution, where bleeding, purging, and other depleting remedies, have not preceded its use. We have seen the most decided good effects of this remedy after a sufficient bleeding,

and would never hesitate to exhibit it where this evacuation had diminished the force of the pulse; and where there was no marked determination to the head. In the warmer parts of our country, we need not perhaps be so cautious—as there, the disposition to inflammatory diathesis is less; and opium can be given both earlier and with greater freedom. Besides, they resemble more the climates in which Dr. Lind found opium so useful.

If, then, the pulse be moderately soft, either from the disease not being much disposed to inflammation, or from previous depletion, a grain of opium, with a quarter of a grain of the tartrate of antimony, may be given at the commencement of a hot fit; and if it act favourably, it will procure a free perspiration over the whole body—but if instead of this, we find the hot stage protracted, or all the symptoms aggravated, it should not be again given, until the activity of the blood-vessels is more effectually subdued.

It may not be amiss to say, that the epidemic character of intermittents, should always be consulted when we propose to use opium in any shape, for it is one of those remedies which has a very decided agency upon the nervous system; and when exhibited in any acute disease, without immediate benefit, it rarely fails to do harm—therefore, the influence of the epidemic upon the force and vigour of the pulse, must always be taken into consideration. And as a general rule, we may with safety declare, that the usefulness of opium in arresting the paroxysms of intermittents, will be almost in proportion to the reduction of the pulse." p. 91.

And again, after speaking of the importunity of the patient for opiates, to allay the restlessness and inquietude of the sleepless nights in remittent fever, he remarks:

* * * "An ill-timed exhibition of opium in certain states of the remittent form of fever, is almost always mischievous; and we are sorry to add, has been too often fatal. We have seen, without the smallest doubt, several instances of heavy stupor, and apoplexy, produced by even a dose of laudanum.

On this account we are extremely reluctant to give it, at almost any period of a remittent; and more especially to a yellow fever patient, whatever may be the degree of sleeplessness or agitation. Under such circumstances, we have found, almost constantly, that there was either a general or partial accumulation of heat, especially of the head, a dry skin, bowels rather tardy, or very offensive evacuations, to be the cause. Or it has been found owing to a dull but pretty constant pain in the head, attended sometimes by slight delirium; and other times with a slight stupor, alternating with distressing watchfulness. Pulse either too quick or lagging.

In these cases, we are certain that opium would be injurious, if not fatal. Instead, therefore, of it, in such cases, cold applications to the heated parts of the body, and extremities, by sponging; to the head by wetted cloths, or a bladder of cold water; a few leeches should

be applied to the temples; a mild purge should be exhibited; as castor oil; a free ventillation of the room should be made, together with a decided reduction of the bed-clothes." * * *

In intermittent fever, we think that the author lays too much stress upon the pulse, as a guide to the use of this medicine, which, in fevers of this description, is a very uncertain criterion to judge by, and that he attributes too much to the influence of climate in modifying autumnal disease; the physicians in the latitude of S. Carolina and Georgia, being as much afraid of the use of opium, as in Philadelphia.

On the subject of purgatives, he is very explicit as to their importance, but he is rather indefinite as to the kind we should use. Entertaining a very great dread of drastic purgatives, he recommends moderate purging by grain doses of calomel, repeated hourly until six or eight grs. are taken, to be followed by castor oil, epsom salts, and magnesia, or some other mild cathartic. We must consider the division of this class of medicines into laxatives and purgatives, as a very superficial one. If they differed only in degree, the former, by increasing the dose, might be made to answer all the indications of the latter. With some of these, this would be actually the case, if their inefficient nature did not, under certain circumstances, preclude the possibility of taking them in sufficient quantity. With others, however, as with the neutral salts, the serous exhalation they produce is entirely out of proportion with their effect in evacuating the bowels, and hence patients are flattered with the appearance of copious evacuations, while the end for which they were prescribed is entirely unanswered. By an active course of general and local bleeding, by the use of antimonials, and the most rigid abstinence, the more drastic cathartics may perhaps be dispensed with; but their use should be relinquished only by those who are disposed to follow out the Broussaian practice in all its details.

On the subject of arsenic, Dr. D. remarks:

"As far as our experience enables us to institute a comparison between it and the bark, we should say, it is fully as certain, and

without some of its inconveniences. The only objection that we believe can be urged against it, is, that it is a medicine of most deadly power when improperly used. But when properly exhibited, it is as safe as opium, or any other medicine in daily use. We have never seen the least injury result from it—it sometimes sickens the stomach, and occasionally even to vomiting—but of what medicine of any power may not the same be said.*

The arsenical solution has a decided advantage over any preparation of bark, when children are the subjects for its exhibition—to them it can be administered with the fullest effect, without their being aware they have taken any thing. It may be given when the system cannot receive the bark, or even when the pulse is too full to bear its use."† p. 96.

Our limited experience with the article would lead us to prescribe it, precisely as we would give digitalis in dropsy; when the symptoms of inflammation were subdued, and the disease had assumed a chronic form.

On the subject of relapse in intermittent fever, he thinks they are particularly apt to occur on the 7, 9, and 13 days, and recommends these days to be anticipated, by a few doses of the bark; by the black pepper, of which he recommends 6 or 8 grains to be taken three times a day; or the piperine in doses of 1 grain in the same manner.

Chapter IV. *On Yellow Fever.* Our limits permit us only to glance at the contents of this chapter. The author adopts the idea that this disease and the bilious remittent, are distinct diseases; admitting at the same time that the distinction is of little practical importance, since the treatment is to be conducted on very nearly the same principles. The following extract will give some idea of his classification of the varieties of the disease:

"*When we have witnessed the most decided good effects from this medicine, it has always been in recent, or at least, not in very long standing cases—and we think it more successful in young, than in old subjects.

†The arsenic, like every other tonic or stimulant, employed for the cure of fever, must have the system prepared for its reception; but we think it can be given earlier, and with less depletion, than the bark. Nor is it a matter of any consequence, so far as we have observed, if the fever be not absolutely subdued at the time of its commencement. Indeed, some are of opinion, that this medicine can be given during the whole march of the disease. As regards our own experience, we confess it to be at variance with this declaration."

Three distinct modes of attack may be observed in the yellow fever, as we have just observed ; each of which has something peculiar to itself ; this variety must arise from, 1. The greater or less degree of concentration of the remote cause, or marsh miasma. 2. To the peculiarity of constitution. 3. Or to the nature and degree of the exciting cause. Each of these circumstances will necessarily modify to a certain extent, the form or force of the disease ; accordingly we find it presenting itself, 1. Where the disease rapidly runs on to dissolution, and is accompanied by black vomit—this form has often terminated its career within three days, and never exceeding the fifth day. 2. Where the disease was without remissions, or when they were so indistinct, as scarcely to be observed. In this form of the disease, the course is not run with so much rapidity as the first ; but for the most part the sufferings of the patient are greater—there is no perceptible attempt at crisis, and where it terminates fatally, it is for the most part from the fifth to the seventh day, and is not necessarily attended with black vomit. 3. Where the paroxysms can be pretty regularly traced, or where the periods of exacerbation are not so entirely uncertain, but where there is stronger evidences of an inflammatory diathesis, than in either of the former ; but which may rapidly change if not arrested by proper remedies, into an opposite state, and terminates either in the black, or the coffee-ground vomit—this form may terminate within five days, or if checked, may run on to the seventh, ninth, or eleventh day." p. 126—127.

As to the treatment, Dr. D. recommends a decided antiphlogistic course, bleeding in the cautious but decided manner, recommended by Rush ; purging with calomel, followed, if necessary, by other mild purgatives, &c.

The plan which the author has pursued in this work, of confining himself, except in a few instances, to the record of his own experience, has prevented him from frequent allusions to the opinions and practice of others. We must confess, however, that we felt disappointed, that in treating of this disease, he has made no allusion to the character of Dr. Rush. The principles for which this illustrious man contended, are now so universally admitted, that few are sensible of the extent of our obligations to his memory, and in no part of the United States is the merit of this physician more overlooked, than in the city of Philadelphia. Some tribute of respect, therefore, under these circumstances, was the least that might have been expected from one who bore with Dr. Rush the brunt of popular pre-

judice in '93, and who is himself so honorably mentioned by him in his account of that and the succeeding epidemics.

Chapter II, on *Continued Fever.* Dr. D., following the authority of other writers, divides this form of fever into the *Inflammatory, Synochus,* and *Typhus.* For the cure of the former he recommends bleeding, *to an extent that will insure an abatement of the headache, and decided reduction of the pulse;* local depletion by cups and leeches; free purging by calomel and *the more mild purgatives.* Calomel is to be dispensed with after the first or second day, *unless the evacuations become dark coloured, without odour, or very offensive,* with a *frequent inclination to use the pan without passing much at a time.* Under these circumstances, it should be given, and continued until it produces a change in these respects. He advises emetics under the following circumstances.

"Should the bowels not be speedily or sufficiently obedient to the medicines exhibited, but become painful and tumid, they should be excited to discharge themselves by means of a simple injection. If the stomach become very sick, and throw up bile, twenty grains of ipecacuanha should be given in a table-spoonful of lukewarm water, and its operation encouraged by draughts of warm water. But if the stomach be merely sick, or rejects a colourless or pea-green fluid, the emetic should not be given; especially, if there be a tendency to dryness of the tongue, or much tenderness at the pit of the stomach." p. 148.

Dr. D. admits the *typhus* form of continued fever into this division, with great reluctance, as he believes it to be, not the necessary consequence of any particular form of fever, but wholly the effect of injudicious or inefficient treatment. We cannot agree with Dr. D. and others who refer this form of fever to a state of previous excitement; for at times, when inflammatory remittent fever has been epidemic, we have seen numerous cases among persons who have been exposed to long continued cold, or to cold alternated with heat, that have assumed this typhus form, most unequivocally, from the commencement.

How are we to reconcile the following qualified remarks, with his unhesitating belief in the gastric origin of fever, as expressed in a former quotation.

"The disease in question, has an anatomical character without doubt; and though, we do not consent either to Broussais, or Clutterbuck's exclusive locations, for this character, (as both are certainly right at times,) yet we are persuaded, that in every instance of this disease, some one portion of the system, has been acted upon in an especial manner by the remote cause; which will have the effect perhaps, of modifying the force, and perhaps the succession of phenomena attendant upon the disease when about to be developed, or after this has fully taken place." p. 157.

We shall extract from this chapter only the following summary of general principles, to which, with some slight qualifications, we are disposed to give our cordial assent:

"First. That in all adynamic fevers, there is more or less inflammation almost constantly present, either general, or local.

Second. That even during this more or less inflammatory condition of the system in general, or in portions of it, that the most unequivocal evidence exists, that, a certain combination of symptoms will present themselves; such as a dry parched tongue, and lips; flushed cheeks; low, muttering delirium; a dry, rough, unrelenting skin; lying upon the back, with the legs drawn up; high colored, scanty urine; subsultus tendinum, picking of the bed clothes; and which symptoms have constantly, or with very few exceptions, been called typhus, or typhoid symptoms.

Third. That the symptoms just enumerated, do not give evidence, that all inflammation is at an end, when they make their appearance, as is generally supposed.

Fourth. And that when the treatment is made to confirm to such opinion, by the employment of tonics, and stimulants, that the most serious consequences have followed the practice.

Fifth. That though the symptoms mark a less active state of inflammatory action, yet that the action present, nevertheless, is of the phlogistic kind; and cannot be relieved by a stimulating plan of treatment.

Sixth. That nothing in practice is more decidedly wrong, or more actively mischievous, than the belief, that, when the system will not bear active depletion, that it necessarily calls for the opposite mode of treatment.

Seventh. That it is now agreeable to the best experience, that the employment of stimulants, is sure to be followed by a marked increase of every bad symptom; and that when recoveries have taken place under the stimulating plan of cure, they have only marked the strength of the recuperative powers of the system, and not the eligibility of the plan adopted.

Eighth. That when the system is in that forlorn condition, in which we dare not deplete; and that we must not stimulate, it is the best and most successful practice, to remove all the physical

causes in our power, that may have a tendency to depress the oppressed system; such as impure air; offensive smells; soiled clothes; too much heat; too low a temperature; too great a weight of bed clothes, and too much company. To administer such kind, and quantity of nourishment, from time to time, as will offer the least trouble to the feeble digestive powers; (such as has already been specified at par. 217,) and such drinks, as will make an agreeable impression upon the gustatory nerves; but which shall not convey to the stomach any decided stimulating agency. To promote to the last, the alvine discharges, either by injections, or by the mildest aperients; to effect, (and if necessary by even artificial means,) the flow of urine." p. 165—166.

Chapter VI. *Typhus.* Under this head, the author has deviated from the principle laid down in his preface, by treating of a disease which he believes to be peculiar to Great Britain and to Denmark, and which only makes its appearance in other countries when introduced from one of these.

His description of the disease, and the mode of treatment, is principally drawn from Dr. Burne's Treatise on Adynamic Fevers. We shall, therefore, pass it by without comment, except to remark, that in the conciliatory paragraph, he has certainly done the physicians of this country great injustice.

"'We have thus given the general outline of Dr, Burne's account and treatment of typhus fever; it will be quickly perceived, that his plan is very different from that, which is generally pursued in this country by many practitioners for this supposed disease as supervening upon our Mismatic fevers, and as we have had occasion to remark at p. 152 et seq. With those who dread the onset of typhus in every species of fever; this practice will not be altogether approved of—"what," say they, "bleed, cup, and purge, when typhus is impending! No, no, give bark, wine, volatile alkali, brandy, ether, phosphorus, &c. &c. if you mean to cure the disease.'"

We do not believe that a physician of any intelligence, or character, could be found to use this language, in the United States.

Chapter VII. *Measles.* This, Dr. D. states, generally makes its appearance in the winter, and is more severe in cold weather than in mild. There is a popular opinion, for which he thinks

there is some foundation, that it returns regularly as an epidemic, once in seven years. Upon the authority of some experiments of Dr. Chapman, in which the blood, the tears, the mucus of the nostrils and bronchiæ, the eruptive matter of the cuticle properly moistened, were all tried, and without success, he is disposed to doubt its advantageous nature.

As regards the prognosis, he observes, that the disease is dangerous in proportion as the head, the lungs, and the stomach, may be affected, and is always to be feared in habits disposed to consumption. Much fever, without a corresponding eruption, or if the eruption come out with difficulty, or of a pale or livid color, is always a bad sign. The same may be remarked of the abrupt disappearance of the eruption, or if it be attended with severe vomiting, tenderness of the epigastrium, or a diarrhea.

The following may be considered as a very favorable specimen of the Broussaian mode of reasoning:

"Death, when it happens, however, takes place in measles at different periods in the progress of the disease, which produces a difference in the phenomena observable in examinations; thus it has been known to prove fatal as early as the fourth day. When this event takes place so early, it is generally attributed to the "striking in" of the eruption; but this is not the case, were we to adopt even the popular language upon this subject; for when a disease leaves the skin, or more properly speaking, when it is no longer maintained there, it is not because it has changed its seat, but because some portion of the mucous membrane may be too powerfully affected by an efflorescence similar in its nature to that which occupied the skin.

In this case the peculiar action, or inflammation constituting measles, so far transcends its ordinary degree, as to destroy its peculiarity of action in either the mucous membrane of the bronchia, or of the stomach, or intestines; and consequently the peculiar sympathy of the skin which gave rise to the eruption upon its surface, could no longer be maintained, because the specific action on other parts, and from which the sympathy arose, no longer existed, in consequence of the inordinate or altered action in the original seat of irritation. The same thing occurs in variola." p. 183—184.

Dr. D. lays it down as a general rule, liable to exceptions imposed, by the constitution, season of the year, and above all,

by the epidemic peculiarity of the atmosphere, that measles is more inflammatory than any other of the eruptive diseases. Hence when symptoms of local inflammation appear with violence, the antiphlogistic mode of treatment is to be enforced in its utmost rigor, and it frequently becomes necessary to do this, when the system is so much oppressed as to call, apparently, for treatment of a very opposite nature.

The character of the disease may be typhoid; when a free use of the lancet would be improper. We must then have recourse to cupping, and blisters, if there be much pain or oppression about the chest, emetics if there be great accumulation of phlegm, plentiful purging with calomel, and the warm bath. Should symptoms of exhaustion supervene, diffusible stimuli may be used, with blisters to the extremities, or sinapisms to the soles of the feet.

As soon as the inflammatory symptoms are subdued, opiates may be resorted to, in that form which is least objectionable to the patient.

Cough, or diarrhea, are very liable to follow this disease, and as they frequently run to a fatal termination in a very insidious manner, they should be met, when at all violent, by very prompt and decided measures.

The patient, in this disease, should be kept cool, but the tendency to affections of the lungs, forbids that he should be kept so as much as in small pox. From sixty to sixty-four degrees of Fahrenheit, is the proper standard.

Chapter VIII. *Apoplexy.* In this chapter, Dr. D. having detailed the history and predisposing causes of apoplexy, gives, at some length, the opinions of M. Serres in regard to its pathology. This writer supposes that effusions are the effect, and not the cause of apoplexies. In support of these opinions, he alleges experiments made upon animals, by causing effusions from the longitudinal sinus, artificial effusions in the ventricles, and artificial excavations in the cerebral substance,—in which no apoplexy was produced. He refers also to the numerous cases to be met with in the annals of our sciences, in which very considerable effusion has taken place without apoplexy, and again

of apoplexy taking place without effusion. He divides apoplexy into two species. 1. *Meningeal Apoplexy*, in which the membranes are diseased. 2. *Cerebral Apoplexy*, in which the disease is located in the membranes, and makes the following distinction between the two varieties:

"'The meningeal apoplexy principally attacks youths from the age of fifteen, and old men past sixty—it generally affects females before the last named period." "Of forty meningeal apoplexies, there were thirty two in females, and eight in males.'

Attack—"Physicians have differed greatly in the mode of attack in apoplexies. One party has said that they always come on suddenly—the other, that the attack is preceded by precursory symptoms, which manifest themselves many days previous. Both sides have been right, and both in a certain degree wrong, as the cases may have been meningeal or cerebral."

The meningeal apoplexy is almost always slow; has precursory symptoms, as torpor; difficulty in exercising the mind, and its becoming easily fatigued; perception blunted; drowsiness; respiration slower than ordinary—tardy circulation; less warmth than usual; secretions diminished; impaired digestion, and sometimes vomiting.

Mr. Serres asks, "what distinguishes apoplexy from sleep?" He answers the question by the following important observations. "In sleep the respiration is slow, and the circulation is in a relative proportion—in apoplexy the natural relation is destroyed."

Whatever difference age and strength may make, in the number of pulses in a given time, the discordance between them and respiration never fails to show itself; and when this is at its maximum, the stupor is also. Thus Mr. S. relates a case in which the following extreme of disparity between the pulse and respiration existed—pulse, eighty-three strokes to eleven inspirations. And that the abolition of the natural and mental functions, are in the precise ratio to the loss of the healthy proportions between the motions of the heart and the lungs; and that these functions are restored, exactly in the degree that the pulse and the breathing approach the natural standard.

He also states this curious, and to diagnosis, valuable fact: that in meningeal apoplexy, respiration is always equal on both sides; that is, the thorax is equally dilated on the right and left sides, which is not the case in cerebral apoplexies. The mouth is not distorted; the body lies in a straight line; and if the patient be not in a state of stupor, he will present both hands—if he be somnolent, irritating the limbs will produce the same motions. The nervous and muscular systems preserve their powers on both sides. Though meningeal apoplexies present important varieties in the fluids effused, Mr. S. acknowledges he has never been able to indicate them individually from the accompanying symptoms.

The varieties of meningeal apoplexies, are deduced from the nature of the fluid effused; by the absence of effusion, and the rupture

of arteries or veins in the brain. Hence there is, 1st, *meningeal apoplexy*, without effusion; 2d, with effusion of simple serosity; 3d, with sero-sanguineous effusion; 4th, with arterial rupture, or aneurismal dilation; 5th, with venous rupture." p. 205—206.

Cerebral Apoplexies and their varieties.—"The attack is often instantaneous, especially in men of plethoric habits, short necks, corpulent, and addicted to wine and women. Some moments before the attack, the mind is more than usually active. Sometimes a numbness of one side, one side of the face, or a fixed pain in the head, precedes the attack; the tongue is sometimes embarrassed; a difficulty in pronouncing certain letters, or words—rarely stuttering.

"But whether the fit has been preceded by these symptoms or not, at the moment of attack the face is coloured in an unusual manner; the cervical and facial veins swell; the tongue becomes embarrassed; the sight is imperfect; the hearing impaired; the sensibility and the faculties of the mind lost—and if the patient be erect, *he falls upon the side which afterwards will be struck with apoplexy*—this circumstance is of much importance to the physician when called to the patient."

"Some hours after the attack, if the brain has not already been destroyed at some part of its surface, respiration becomes slower, the venous blood suffers a mechanical obstruction, and requires an appropriate reaction of the breast. The pulse is strong, hard, and frequent—the action of the heart increases in proportion to the difficulty of respiration. The force and hardness of the pulse continue until the moment a vessel gives way in the brain—it then becomes suddenly small, concentrated, and frequent."

"Respiration is equal on both sides in the beginning of the attack, but the thorax and lungs are unequally dilated—one side of the chest becomes motionless, while the other seems to redouble its activity; on the side in which the action is diminished, the ribs are flattened, but on the opposite side they are elevated; the two sides thus offering a very obvious contrast. This happens previously to the occurrence of the hemiplegia; and it is important to attend to this symptom, as it points out the side that will be paralyzed."

Coma and stupor extreme—sensibility diminished on both sides; sometimes remarkably so on the side about to be injured—at other times sensibility remains, though paralysis is about to take place. The paralyzed member sometimes preserves its sensibility; but when it loses it, it is before the loss of the power of motion." p. 207—208.

In meningeal apoplexy, the membranes of the brain are variously affected. They are thickened, or dry; the vessels are distended; symptoms of inflammation or irritation have taken place; and frequently, effusions of serum, or blood, within the cavities.

When the irritation has been intense, or the membranes inflamed, partially or universally, the effusion is either sanguineous or sero-sanguineous, and is confined to the seat of the irritation.

In the treatment of apoplexy, Dr. D. has suggested one view which we believe will be novel to many of our readers. He states, that a state of depression, similar to that arising from concussion of the brain, often follows the stroke. "The pulse is not in a state of depression, (oppression?) agreeably to his notions of the arterial system." Under these circumstances, he does not venture to draw blood, until by external stimuli applied to the lower extremities, the system is enabled to react.—This distinction we think is not often made. Sir Wilson Philip, in his "Treatise on Indigestion," describes a form of apoplexy as occurring in debilitated habits, with very similar symptoms, and very closely resembling nervous apoplexy. So far however from advising this cautious mode of proceeding, he recommends the distinction between this and nervous apoplexy, to be very carefully made, in order that the lancet, which he looks upon as almost the only resource, may at once be used. Emetics, Dr. D. has never had courage to employ, and thinks that even in *crapulous apoplexy*, in which alone they can be employed with a probability of advantage, they should not be given but after pretty ample depletion.

Chapter IX. *Of Scarlatina.* Dr. D. does not believe this disease to be contagious, "as he has never seen any decided proof that the disease has communicated itself in this way."—For the treatment, he recommends bleeding, if the pulse be full, tense, or hard; emetics; laxatives of which, on account of the tendency to visceral congestion, calomel is most suitable; and cold affusion or sponging if it do not occasion chilliness. The sore throat, as it is not accompanied by pneumonic symptoms, is no objection to this treatment; on the contrary, he has thus seen it most evidently relieved:

"We are told the warm bath is exceedingly efficacious, when the eruption imperfectly takes place, owing to general languor; and especially when attended by coldness of the surface—or having appeared,

suddenly recedes, inducing great gastric distress, and other very unpleasant symptoms—to cleanse the foul ulcers of the throat, emetics are found most effectual—the emetic may be followed by the use of detergent gargles; the best of which are composed of Peruvian bark, with a portion of the tincture of myrrh—or barley water, acidulated with the sulphuric or muriatic acid, with the addition of honey. An infusion of Cayenne pepper, alone, or mixed with barley water, or the decoction of bark, is much, and we have reason to believe not too much, praised as a gargle, as far as we can rely on our own observations.

In the malignant shape of this disease, the general practice is nearly the same as in the preceding or anginose state. We rely mainly on evacuations of the primæ viæ—first, by emetics, and next with the mercurial purges."

When great depression supervenes upon either of the forms of the disease, the system must be supported by camphor, ammonia, turpentine, bark, and wine, aided by the ordinary external irritants.

The œdematous swellings of the extremities which frequently follow this disease, are best relieved by laxatives, followed by digitalis.

The dropsical affections frequently arise from the inflammatory stage not having been sufficiently reduced by depleting remedies. When this is the case, they are best relieved by purging, and by diuretics of the "saline kind," as nitre, or nitre and squills.

Chapter X. *Urticaria.* Nettle Rash frequently attacks children who are teething, and who are indulged with much fruit, or acescent food, especially in the summer season. It is frequently occasioned very suddenly by articles of food, by boiled cabbage in the spring of the year, by cold lemonade when the body is heated, and by eating certain kinds of fish. Dr. Hewson mentions several cases of eruptions which arose from taking balsam copaiva, some resembling urticaria, others erythema, or roseola. Strawberries sometimes give rise to it. This disposition to urticaria, generally depends upon idiosyncracy, and is frequently confined to a single article of food. In other individuals there is a general predisposition to the disease, when any thing indigestible has been received into the stomach.

In this disease, there is almost universally acidity of the stomach; hence the general treatment should be alkaline, magnesia, lime-water, and milk; saline purges should be avoided, and in their stead, magnesia, or magnesia and rhubarb, should be used; nothing acid should be taken into the stomach. To relieve the itching, he recommends sprinkling the surface with well toasted rye or wheat flour. We have found nothing so effectual, as gently stimulating the surface with turpentine, or some of the preparations of ammonia. In chronic urticaria, great attention must be paid to the diet, and the condition of the digestive organs. When these measures fail, great benefit has resulted from the persevering use of Fowler's solution.

"A very interesting case of chronic urticaria is related by Cazenave. "In the hospital of St. Louis, in a patient of Mr. Biett's wards," says Mr. C., "we have seen it (urticaria,) accompanying a quotidian intermitting fever, and after having lasted for four years, finally induce swellings and great distention, ecchymoses, ruptures, and ulcerations. In many paroxysms it was accompanied with a general tumefaction; sometimes to such a degree, that the patient was nearly suffocated; his respiration was hurried, the movement of the thorax very slight, the neck swelled, the face puffed up, and of a violet colour, the pulsations of the heart intermitting, and at times scarce perceptible, and death, which appeared imminent, only prevented by large bleedings."

'This patient, who had passed through several hospitals, and in which every means of cure had failed, was at last restored to health by the use of Fowler's solution.' "

Chapter XI. *Phrenitis.* This chapter we are compelled to pass over very slightly, and we do this the more willingly, as the symptoms of the disease are familiar to every physician, and the treatment decided with as much accuracy as the imperfect nature of our profession will probably ever admit of. But although the characters of the disease are generally so distinctly marked, yet occasionally the greatest ambiguity prevails.—*Post mortem* examinations have frequently shewn that the most decided symptoms of inflammation of the brain, have been produced by inflammation of the stomach, intestines, liver, or lungs, while on the other hand, all the consequences of inflammation are frequently met with, when the disease has proceeded so insidiously that its existence was scarcely suspected.

From his treatment we can make but one quotation:

"Blisters as revulsives are highly useful when the system is reduced to the blistering point. (See p. 260.) They should be applied to the calves of the legs, to the inside of the thighs, or to the forearms. We have strong doubts of the propriety of blistering the head—indeed, we are of opinion that it is injurious; to the shoulders, is less objectionable, though not a decidedly eligible spot." p. 240.

Advice that has been repeated sufficiently often to be familiar to every physician, but which we have too often seen neglected with the most unfortunate consequences.

Chapter XII. *Hydrocephalus Internus.* This chapter we think one of the most valuable in the work. Indeed it was in this chapter that we first recognized the familiar and peculiar manner of the author. The subject, however, has received so much attention from the profession, that we will be justifiable in making but few extracts. Dr. D. never employs bleeding from the arm in this disease, if the system be prostrated before the attack; but bleeds cautiously with leeches, according to the urgency of the symptoms. The following remarks on purging are very judicious:

"This remedy cannot be dispensed with, in either form of hydrocephalus—in the acute, it is essential, as no other remedy with which we are acquainted, relieves the head of its superfluous blood, like purging—this effect is not difficult to understand if we call to mind the direct communication of the blood-vessels of the abdomen and the head. * * * But notwithstanding our conviction of the efficacy of purging in hydrocephalus, yet it must be understood, that it is only *certainly*, and extensively useful, in the idiopathic acute hydrocephalus, *after the system has been lowered by a previous bleeding, or bleedings.* Not so, perhaps, in the symptomatic species—in this variety, purging may be of paramount benefit to bleeding. * * * * * * After a free purging has been instituted, and we think it no longer desirable to persevere in it, we maintain a sufficient action of the bowels by very minute doses of calomel, that is, from a quarter to half a grain every two or three hours, or by small doses of castor oil. It may be proper, however, to suggest a caution to the young practitioner here, not to persist too long in cathartic medicines, by reminding him, that in most instances, the stools will appear of a dark-green colour, purge as we may; therefore, that further purging is not called for from the mere appearance of the evacuations." p. 252—253.

The part we have marked in italics, conveys an important practical precept, from inattention to which, the followers of Broussais having been led into many extravagancies, on which they are constantly harping with much arrogance and little reason. But we shall again refer to this subject at the end of the review.

His remarks on blisters we consider of so much importance, that we shall repeat them, although very similar to those extracted from the former chapter. Indeed we are convinced that there is no remedy from which so much benefit is expected, and so little advantage derived in this disease, as from blistering.

"Blisters are to be applied to the legs and thighs alternately, if necessary, as soon as the first stage threatens a conversion into the second; and they may be repeated to the end of the disease. Many prefer the head; but this is certainly an inconvenient part to blister, if it be not an improper one; and if we can place reliance upon our own experience, we have thought it injurious in many instances. To the nape of the neck, is much better as regards effects; but the position is certainly a fatiguing one to the patient—we have, therefore, for the last thirty years, rarely applied them to this part; believing most firmly that more advantage is derived from their employment upon the extremities." p. 254.

Chapter XIII. *Diseases of the Eyes.* This treatise, which we are given to understand was written by Dr. Hays, we shall pass over, as we intend to take up the subject at large in a future number.

Chapter XVII. *Cynanche Trachealis.* Every physician who has had an opportunity of witnessing the progress of this terrible disease, must be anxious to gain information upon the subject from every source. Dr. D. was led to pay particular attention to it, from having lost one of his own children by it; and we can safely recommend this treatise as a most valuable one. The disease may make its attack in one of two ways.

"This disease attacks in one of two ways; 1st, by a hoarseness, which is perceived upon coughing, and which may continue without increase, for even several days, or until perhaps the sudden application of some exciting cause; such as a change in the temperature of the air.

For exposure to cold and damp, or to check of perspiration, calls forth some of its more formidable symptoms; as more or less difficulty of breathing; an increase of cough without expectoration and fever.

Or secondly, it may attack with the most alarming suddenness where no such onset was expected. When it is thus prompt in its appearance, it menaces life from the moment of its invasion; and if its terrible march be not speedily arrested, it but too frequently triumphs in death." p. 346.

To this hoarseness, as a premonitory symptom, he attaches great importance, and thinks it should never be neglected. We select the following remarks:

"The hoarseness which disappears spontaneously, is very distinct fromthat of croup; the difference, however, cannot well be conveyed by words, unfortunately, sometimes, for those who may be assailed by it. It may, however, be observed, that there is a certain clearness and distinctness in the croupy sound, that does not attend the other: the one, (the croupy, seems as if it issued from a metallic instrument; and the other from one of a less vibrating material. The ear, however, by long habit, may learn to distinguish between them, and when once instructed in this discrimination, never loses its tact.

We may also observe that the evanscent hoarseness is almost always accompanied by a little soreness of the throat; while that of croup, we believe, is never. Again, the first is perceived in common speaking; whereas that of croup is only discoverable in the commencement by coughing. Lastly, some little pain and soreness are observed about the posterior fauces after coughing, which never happens in that of the croup. It may not however be amiss to observe, that a mere loss of voice must not be mistaken for croupy hoarseness, as we have known it to be on several occasions, to the great terror of an anxious parent." p. 349.

Dr. D. divides the disease into three stages. *The First, or Forming Stage; The Second, in which the disease is completely formed;* and the *Third, or Congestive Stage.* Upon what principle this last stage is called *Congestive*, we are at a loss to determine. Dr. D's practice does not differ materially from that generally recommended. When the disease is decidedly formed, he recommends a large bleeding to make the first impression. But he cautions the young pracitioner against making *mere difficulty of breathing* the only indication for a second bleeding.

"To make a second bleeding proper, there must be a continuation of the same symptoms, though perhaps with a lesser degree of

force, which made us determine upon this operation in the first instance; that is, the pulse must be firm, the skin warm, the face flushed and the oppression considerable." p. 363.

He is decidedly opposed to leeches, and if topical bleeding is necessary, recommends cupping between the shoulders.

Persons of more experience than ourselves must decide upon the propriety of the following condemnation of the warm bath. But in confirmation of his views we may remark that it has seldom fulfilled our expectations.

"This, of all the remedies employed in croup, requires the most judgement in prescribing it; and certainly the most caution, properly to apply it. We have never seen it managed with so much address, as not to have made us tremble for the consequences; nor with so much success as to tempt us to brave them. We can most conscientiously declare, we have never, in a single instance, witnessed a decided advantage to arise from its application; but we can most truly say, we have had the most unequivocal evidence of injury. We therefore never prescribe it in this disease." p. 367.

Chapter XIX—XX. The author devotes more than 130 pages to the inflammatory affections of the lungs and to consumption.

He has taken advantage of the light thrown upon the subject of diseases of the chest, by the late researches of Laennec, and others; and has collected much valuable information. The chapter is too exclusive to permit even a glance of its contents. We shall merely extract Laennec's account of his mode of administering tartar emitic.

"As soon as I recognise the existence of the pneumonia, if the patient is in a state to bear venesection, I direct from eight to sixteen ounces of blood to be taken from the arm. I very rarely repeat the bleeding, except in patients affected with disease of the heart, or threatened with apoplexy, or some other internal congestion. More than once I have effected very rapid cures of intense peripneumonies without bleeding at all; but, in common, I do not think it right to deprive myself of a means so powerful as venesection, except in cachetic or debilitated subjects. In this respect, M. Rasori does the same. I regard blood-letting as a means of allaying for a time the violence of the inflammatory action, and giving time for the emetic tartar to act. Immediately after bleeding I give one grain of the

tartar emetic, dissolved in two ounces and a half of cold, weak infusion of orange leaf, sweetened with half an ounce of sirup of marsh mallows or orange flowers; and this I repeat every second hour for six times; after which I leave the patient quiet for seven or eight hours, if the symptoms are not urgent, or if he experiences any inclination to sleep. But if the pneumonia has already made progress, or if the oppression is great, or the head affected, or if both lungs, or one whole lung is attacked, I continue the medicine uninterruptedly, in the same dose and after the same intervals, until there is an amendment, not only in the symptoms, but indicated also in the stethoscopic signs. Sometimes even, particularly when most of the above mentioned unfavorable symptoms are combined, I increase the dose of the tartar emetic to a grain and a half, two grains, or even two grains and a half, without increasing the quantity of the vehicle. Many patients bear the medicine without being either vomited or purged. Others, and indeed the greater number, vomit twice or thrice, and have five or six stools the first day; on the following days they have only slight evacuations, and often indeed have none at all. When once tolerance of the medicine, (to use the expression of Bosori,) is established, it even very frequently happens that the patients are so much constipated as to require clysters to open the body. When the evacuations are continued to the second day, or when there is reason to fear on the first that the medicine will be borne with difficulty, I add to the six doses, to be taken in twenty-four hours, one or two ounces of the sirup of poppies. This combination is in opposition to the theoretical notions of Rasori and Tommasini, but has been proved to me by experience to be very useful. In general the effect of tartar emetic is never more rapid or more efficient than when it gives rise to evacuation; sometimes, however, its salutary operation is accompanied by a general perspiration. Although copious purging and frequent vomiting are by no means desirable, on account of the debility and hurtful irritation of the intestinal canal which they may occasion, I have obtained remarkable cures in cases in which such evacuations had been very copious. I have met with very few cases of pneumonia where the patient could not bear the emetic tartar; and the few I have met with occured in my earliest trials; insomuch that this result now appears to me to be attributable rather to the inexperience and want of confidence of the physician, than to the practice. I now frequently find that the patient who bears only moderately six grains with the sirup of poppies, will bear nine perfectly well the following day. At the end of twenty-four or forty-eight hours at most, frequently after two or three hours, we perceive a marked improvement in all the symptoms." p. 434—435.

In the treatment of phthisis, he recommends bleeding where inflammatory symptoms are present. He condemns all external irritants to the chest, moxo, blisters, setons, issues, tartar antimony; agreeing with Laennec that he has never derived any

permanent advantage from them. He laments "the unavailing, and in some instances unfeeling practice, of sending invalids from their kind homes, to die in a strange land, bereft of almost every solace that illness and suffering, so strongly claim." If the following remarks be true, and we have no doubt that they are so generally, how much suffering has been rashly inflicted:

"If the mischief has advanced a little farther, and there are good reasons for believing that tubercles are already formed in the lungs, more especially if a disposition to inflammation of the organs, or to hæmoptysis, has manifested itself; then, change of climate becomes a more doubtful measure: and, unless adopted with judgment, and with some precaution, may accelerate, rather than retard the progress of disease. In cases of this kind, it will be necessary, previously to undertakeing the journey, to remove, or at least to moderate, the more evident or important of the functional derangements, to subdue excitement, and diminish plethora. Much evil has arisen from inattention to these precautions. Medical men in general seem hardly sufficiently aware of the great excitement produced in the system by travelling, and of the necessity, therefore, of removing those morbid complications most likely to suffer aggravation from this. If the disease has made still greater progress, and the cough, expectoration, emaciation hectic fever, and the results of auscultation, leave no doubt of the advanced stage of the tubercles; the mischief to be apprehended from the exposure, the fatigue, the irritation, and excitement of a long journey, is greatly increased; and, under such circumstances, generally speaking, no advantage is to be expected from the change; and very often the fatal termination will be accelerated by it. But should the symptoms just enumerated, from whatever cause, have become much mitigated, and more especially if there is reason to believe, from a careful examination of the chest, that the disease is confined to a small portion of the lungs; then, a residence in a milder climate affords the best opportunity of aiding the efforts of nature in the work of reparation; and, by contributing to the reestablishment of the general health, will tend to prevent the further formation of tubercles." p. 516—517.

Of all other narcotics, he prefers the preparations of opium for the purpose of relieving the cough.

Here, for the present, we shall take our leave of this work, designing, at a subsequent period, to take a cursory notice of the succeeding chapters. Of the work, as a view of the theory and practice of medicine of the present day, we confess we are rather disappointed. As a work of elementary instruction, calculated to give clear and precise views, not of what learned

men have thought, but of what practical men are anxious to know, there is no book which we would place in the hands of the student with more confidence. In comparison with what the author has written heretofore, the present work will appear to disadvantage. The talents and habits of the author we presume are better adapted to mechanical than scientific arrangement. Hence one reason for the superiority of his former works over the present. An additional reason may be found in the fact, that to the subject of the former, he has devoted himself more exclusively, both as a science and as a matter of practice. To the latter, he has devoted himself principally with a view to the acquisition of practical skill.

In the present work, so far as he enters into speculations of this kind, he appears as the advocate of the principles of Broussais, as far as could be expected of a man whose opinions and practice had been formed under the opinions of the old school.

Upon the subject of the universal proscription of active purgatives, we think, even admitting the truth of Broussais' premises, it by no means results that his practice follows as a necessary consequence. If purgatives *are* direct irritants to the mucous membrane of the bowels, do we not frequently prescribe irritants to inflame surfaces with a view to their cure? and independent of any influence of this nature by these medicines, may not the increased secretions which result from their operation, have a powerful influence in controlling or modifying this inflammatory action?

The fact we believe to be, that the mucous surfaces of the primæ viæ in fever, are very generally in a state of irritation, arising from the influence of the general excitement upon organs of great sensibility, possessed of numerous sympathies, and which, in consequence of our artificial modes of living, are debilitated by their constant exposure to the causes of functional and organic irritation. Hence, in fever, local determinations almost universally take place to the mucous surfaces of these organs, as the most sensible, the most exposed, and the most debilitated part of the body; and as a consequence, their functions

are impaired, their secretions vitiated, and they are usually in a state of inflammation, or of irritation approaching very nearly to it.

One important indication to be fulfilled by purgatives, we conceive to be the restoration of their secretions. The *modus operandi* of this process, we pretend not to explain. It is sufficient to our purpose, that daily experience proves the *fact*.

That purgatives would be useless or injurious during a state of very high irritation, we would very naturally infer, from what we observe of the effect of every other class of medicines during this condition of the system. Neither diaphoretics, diuretics, blisters, alteratives, nor even those medicines which are in their operation directly debilitating, as arsenic, digitalis, and antimony, can be given with propriety under these circumstances. The secretions are locked up, as a consequence of that condition of the vascular system, which invariably accompanies vascular irritation. Cathartics do indeed admit of a wider range of application, since they are daily used with advantage for the very purpose of preparing the system for the administration of these remedies, but there is doubtless a limit with regard to them also, and he who would avoid the error of adapting his remedies to the name of the disease, must frequently lower the excitement by general or local depletion, before he ventures to give any cathartic, especially drastic ones.

We are very willing to admit, therefore, that the present practice of prescribing this class of remedies universally at the commencement of every disease, requires to be modified; but we are equally certain (although upon this our limited experience entitles our opinion to less weight with the public,) we are equally certain, that in universally avoiding all remedies of this class, they are verging still further upon the opposite extreme.

F.

Principles of Military Surgery; comprising Observations on the arrangement, police and practice of Hospitals, and on the History, Treatment, and Anomalies of Variola and Syphilis. Illustrated with cases and dissections. By JOHN HENNEN, M. D. F. R. S. E. Inspector of Military Hospitals. First American from the third London edition. With the life of the author, by his son, DR. JOHN HENNEN. Philadelphia: Carey & Lea, 1830. p. p. 452.—8 vo.

It is with great pleasure that we congratulate the Medical Profession of our country on the appearance of this valuable work from the American press. Since the publication of the first edition, which came out in 1817, copies that have found their way across the atlantic, have been eagerly seized upon by surgeons, and have been treasured up as jewels of difficult acquisition—on three different occasions have we yielded to the instances of young professional friends in parting with our copy of the work, and on each occasion have we been obliged to wait a fresh importation for another copy.

Not only to the army surgeon is this a valuable treatise. By surgeons in practice in large cities—by those engaged in hospital service—but above all by the general practitioner of our Western States, Dr. Hennen's work needs but to be known, and it will be prized above all price.

Dr. Hennen was one of the first who detailed in a formal manner the results of that experience in surgery, which had accrued from those wars which, for nearly half a century, had devastated Europe. So early indeed as 1814, were we favoured by Professor Hall, of the University of Maryland, with a neat translation of the Memoirs of Military Surgery of the Baron Larrey, and thus was the professional appetite whetted for a continued detail of the wonderful results which a scientific examination of the ravages of war on the human frame had brought about. Before this, Mr. Cheraliers' beautiful little prize volume on Gunshot Wounds, was one of the earliest works on the military surgery

of the period, after the immortal work of John Hunter. Mr. Guthrie, too, in 1814, wrote his valuable work on "Gunshot wounds requiring amputation," and the learned and indefatigable Professor Thompson, of Edinburgh, furnished us with his "Report on the state of the wounded in Belgium after the battle of Waterloo." All these were calculated to meet the wishes of the surgical practitioner, but there was still a desideratum—a regularly detailed treatise in which the various branches of military surgery should be presented, was most ardently desired—that the surgeon of other lands might learn what progress had been made in rendering the aids of science more applicable to human misery, and that the greatest possible benefit might result to suffering humanity, from the fierce and bloody struggle in which Europe had for so long a period been involved.

At this precise juncture the work of Mr. Hennen appeared, and was hailed with acclamations! No one perhaps was better calculated to fulfil this arduous task. A man of a clear and discriminating mind, elevated by force of native intellect above mean and despicable prejudice, thoroughly grounded in the elements of science, and above all, excited by an enthusiastic zeal for the progress and elevation of his profession. With such qualifications, and with the experience of twenty years in the actual practice of military surgery, which a high rank in the surgical staff of the army afforded him, and assisted by the contributions of his associates, he compiled the work which we are about to review.

It would be impossible to give any thing like a general view of Dr. Hennen's book in the limits usually assigned in medical journals to attempts of this nature. To present such portions of the work to the attention of our western brethren as will exhibit to them its value, is all that we design.

The work has gone through three editions in Europe. This, the last, from which the American reprint is taken, is published by his son. A short time before Dr. Hennen fell a victim to his exertions in an epidemic fever at Gibraltar, in November, 1828, he had prepared the materials for the third edition. These his son arranged for the press, wisely omitting the plates which had

accompanied the preceding editions, and adding a biographical sketch of his learned and accomplished father.

The opening of the work presents us with a history of military surgery, or more properly with a chronological detail of the authors who have treated on this subject, remarkable as much for the purity and simplicity of the language in which it is clothed, as for the immense labour of research it developes.

The first chapter is devoted to the enumeration of the "*preparatory measures in taking the field.*" This, which it is not our intention minutely to examine, contains precepts, which, to the army surgeon about to enter into actual service, are of indispensable importance. His remarks on various instruments are highly instructive, and we feel assured that no surgeon will find himself the less wise for a careful perusal of them.

The second chapter opens with a detail of the various missiles employed in warfare, which is calculated to throw much interesting light on the subject of gunshot injuries.

* * * "In sieges, balls of very heavy metal (32 lb.) are employed; in engagements in open field, the largest shot seldom exceed 12 lb., and go down to 1 lb.; the other species of shot are the common musked ball, fired singly from muskets, or discharged in cases from field pieces; grape, which consists of small iron balls, disposed in linen bags fastened to a wooden bottom, in the middle of which is a spindle, round which the balls are secured by cord or wire; or case-shot, which consists of the same small iron balls put into tin cylinders, the bases of which are closed by two circular pieces of wood. The last kind of projectiles are shells, or hollow iron spheres, filled with powder, which may act either before or after their explosion.—The closer the contending parties are to each other, the more deadly will be the effects of all these balls; thus, according to D'Antoni, a 32 lb. shot may pierce a file of 70 men, a 16 lb., a file of 48, an 8 lb., a file of forty; a 13 oz. shot, a file of 20; a 6 oz., a file of 16; a 1 oz., a file of 4, if very close to them, and propelled by a certain degree of force,—while a shell will pass through from two to five men, and will kill or wound by its splinters, from six to nine; the distance and the resistance will of course produce great variation in the action of all these missiles. It must be confessed, however, that, much as the artillerist and engineer are interested in ascertaining these points with correctness, it leads to little improvement in surgery, except in as far as it shows the enormous violence with which the bones may be fractured, and their fragments dispersed either into the medullary cavities or the surrounding soft parts." p. 47.

There is so much of truth and simplicity in the following description of a gunshot wound, that no one can fail to recognize its accuracy:

"The effects of a gunshot wound differ so materially in different men and the appearances are so various, according to the nature of the part wounded, and the greater or lesser force with which it has been struck, that no invariable train of symptoms can be laid down as its *necessary* concomitants. If a musket or pistol ball has struck a fleshy part, without injuring any material blood-vessel, we see a hole about the size of, or smaller, than the bullet itself, with a more or less discoloured lip forced inwards; and, if it has passed through the parts, we find an everted edge, and a more ragged and larger orifice at the point of its exit; the hæmorrhage is in this case very slight, and the pain inconsiderable, insomuch that in many instances the wounded man is not aware of his having received any injury. If, however, the ball has torn a large vessel, or nerve, the hæmorrhage will generally be profuse, or the pain of the wound severe, and the power of the part lost. Some men will have a limb carried off or shattered to pieces by a cannon ball, without exhibiting the slightest symptoms of mental or corporeal agitation; nay, even without being conscious of the occurrence; and when they are, they will coolly argue on the probable result of the injury: while a deadly paleness, instant vomiting, profuse perspiration, and universal tremor, will seize another on the receipt of a slight flesh wound. This tremor, which has been so much talked of, and which, to an experienced eye, is really terrifying, is soon relieved by a mouthful of wine or spirits: or by an opiate; but above all, by the tenderness and sympathising manner of the surgeon, and his assurances of his patient's safety. Where some important or vital organ is injured, considerable pain and much anxiety is a general consequence; these will be more particularly considered in treating of the wounds of particular parts.

If the ball has passed through the fleshy part of the arm, thigh, or buttock, we do no more than sponge the part clean, place a small bit of folded lint on each orifice, which we retain by two cross slips of adhesive plaster, and lay over, at most, two or three turns of a roller. The ball will frequently have passed nearly through the limb, and be retained only by the elasticity of the common integuments; there we cut upon and extract it at once; and we should lay it down as a rule not to be deviated from, to extract on the spot every extraneous body that we possibly can, either by the forceps alone, or with the aid of a bistoury. But those who best know the field of battle will easiest admit how often it is impossible to do all in this respect that they could wish." p. 48—49.

The various courses which balls will mark out is very curious. A musket ball will strike a man on the front of his cap, pass round and carry away the hinder tassel. Dr. Hen-

nen is the first, we believe, who noticed that balls will course along *concave* as well as *convex* surfaces; as for instance between the pleura costalis and the lungs. A very slight resistance will cause a ball to turn from its course. We remember a sergeant of artillery who had a most protuberent abdomen, who received a ball in that part, which appeared under the skin on the other side, and which was supposed to have passed through the cavity. The ball was cut out, and the red line which the next day showed itself between the two openings, plainly indicated that the ball had passed between the skin and the fascia superficialis, without penetrating the belly.

We ought to bear in mind the vast difference between the effect produced by a musket and a rifle ball. As the rifle is peculiarly an American instrument, and one too, which, in the hands of our western hunters, is unerring in its effects, a moment or two devoted to the motion of the ball and the effect it produces, will not be time misspent. The motion of a musket ball, independently of its projectile course, on its own axis, is at right angles with its direction. A very slight knowledge of the laws of motion explains this phenomenon. The consequence of this motion is, that when a musket ball strikes the flesh, the hole made is smaller to all appearance than the ball itself. The barrel of the rifle is grooved not in a longitudinal direction as the French and German rifles, but in a spiral manner. The ball is forced down so tightly, that as it passes out, it is under the necessity of following the course of the spiral groove. This imparts to it a motion on its own axis, corresponding with the direction of its course. Besides, the whole ball follows a spiral direction, forming in its progress a hollow cylinder, if I may be permitted the expression. Hence the *ragged hole*, which our hunters know so well, is always much larger than the ball. Hence the rifle ball at full momentum, does not, like the musket ball, remove a cylinder of muscle and bone, but by its rotatory motion tears the flesh and shatters the bone. Hence too, unless the ball is nearly spent, it never glances. These peculiarities in the effect of a rifle ball, are highly interesting to us as Americans. We regret that the limits of this paper, and the importance of other matter before us, do not allow an extension of these remarks.

Before leaving the subject of the glancing of balls, we take occasion to mention a singular instance of mistake in a military surgeon. An officer of distinguished bravery, during the late war, led the forlorn hope of an army into a wood that was supposed to be filled with Indians. His party had scarcely entered the wood, when a well directed fire from the hidden enemy, unhorsed every man, except the gallant officer, who was wounded by five balls. When he was removed from the field, a ball was found to have entered his hip, and another passing through the saddle had touched the tip of the glans penis. Now the sapient surgeon supposed that the ball which had entered the hip, had found its way out through the urethra!!

Mr. Hennen next, in a most forcible manner, proceeds to illustrate and explain the necessity of primary amputations; that is, amputations on the field of battle. It would not be doing justice to pass over the portion of military surgery without a commendation of the chivalrous enthusiasm and fearless bravery of the French surgeons who uniformly established their field hospitals in the rear of the army, and who flew to the assistance of the wounded under showers of grape shot, in the face of the most appalling dangers. It is singular how successfully that transcendant genius, Napoleon, succeeded in infusing into his men and his officers a high minded recklessness of danger when in the discharge of duty.

The remainder of the chapter is devoted to the consideration of sabre cuts, contusions, &c.

The preparatory arrangement and selection of the fixed and receiving Hospitals is the subject of the 3d chapter. We would strongly recommend this portion of the work, which is replete with information of the most valuable nature to those who may devote their time and medical attainments to the service of their country.

Dr. Hennen in his 4th chapter speaks of the *dressings, and general medical treatment.*

"There is no urgent necessity for removing the dressings which have been applied in the field to the more simple wounds of the extremeties, for the first two or three days, whether the wounded have

arrived in the hospital, or are only on their passage to it, provided the slips of plaster and bandage are sufficiently secure, the dressings unstained by a sordid bloody oozing, or no serious stiffness or uneasiness is perceived in the part by the patient himself. In this, however, we must be guided by season, climate, and the constitution of the individual, or the peculiarity of his wound. It will generally be sufficient to keep the dressings moistened with cold water, either alone, or mixed with a little spirits, vinegar, or wine; or, if the weather demands, and convenience on the march permits, the same moderately warmed. As soon as possible after this period, the field dressings should be removed, and the limb either covered with cloths, moistened with an appropriate liquid, or laid in emollient poultices moderately warm. It has of late years become a fashion to decry the application of poultices, and to dwell on the harm they *may* produce, putting entirely out of view the essential service that we actually derive from them; but after long experience on this point, and judging from the feelings of the patients themselves, and the obvious effects upon their wounds, I have no hesitation in saying, that a soft and moderately warm poultice of bread, meal, bran, pumpkin, carrot, or any other emollient substance, carefully applied, and removed at least twice a day, until the sloughs begin to loosen at the edges, and purulent oozing is seen issuing from under them—in fine, till the process of suppuration is fairly commenced, is the best and most appropriate remedy in the early stages of simple gunshot wounds, attended with much contusion of the soft parts, and high inflammation. They should not be continued after this period, nor should they at any time be applied, except under the direction of the attending surgeon. It is to the abuse of continuing poultices day after day, indiscriminately to all states and stages of wounds, that their rejection is to be attributed, and that their bad effects are due. If the inflammatory symptoms do not run very high, and that the sloughs are beginning to separate kindly, a pledget spread with any simple ointment, or merely dipped in oil, and covered with cloths moistened in acidulated water, will be quite sufficient as an external application; while the general state of the system should be cautiously attended to in all cases. Compresses dipped in simple cold water have lately been much recommended by Kern and Assalini, as a substitute for almost all other dressings; and I have seen them employed with considerable advantage. Where this plan is adopted, oil-skins should be employed at the same time, otherwise the beds get saturated with moisture, and severe pulmonary attacks, or rheumatism, may ensue." p. 71—72.

The doctor enters into the history of the use of cold water, in dressing gunshot and other wounds. It is not our intention to touch this subject further than to state that the Baron Percy, late chief surgeon of the armies of Napoleon, had the honour of reviving this antiquated practice with most astonishing suc-

cess. In the article "Eau," in the Dictionaire des Sciences Medicales, the Baron has detailed the wonderful results of this simple practice.

The mode of conducting the subsequent dressings is next exhibited, and our author strongly recommends the admirable observations to be found in Professor Thompson's Lectures on Inflammation, relative to the management of dressings, a recommendation in which we most heartily unite.

The 5th chapter is devoted to the *extraction of foreign bodies.*—Into this subject we do not mean particularly to enter, farther than to state our belief that the common dressing forceps, and the simplification of Baron Percy's bullet forceps, as employed by the surgeons of the United States' troops, will be found fully adequate to all our wants, and far superior to more complicated and more costly instruments.

A very curious case we must be permitted to extract:

"The particulars of the wound," says Dr. Kennedy, "by which Lieutenant F——, of his majesty's 12th regiment, was killed at the siege of Seringapatum, were stated to me a very few days afterwards, by the late Dr. Alexander Anderson, the superintending surgeon and chief medical officer of the army, as follows:—

"A shot from a heavy gun came rolling along the ground, like a spent ball, towards the trenches. It rolled over that part of the banquet under which Lieutenant F—— happened to be lying down, and buried itself under the skin and muscles of his hip. He was immediately put into a dooly and carried into Dr. Anderson's tent. Upon laying down the dooly, the bearers complained of the difficulty they had found in carrying it from the trenches, owing to its having been unusually heavy on one side. Dr. Anderson, upon running his fingers into the wound, was surprised to find a mass of iron of such unusual size, that he concluded it must be part of a large shell which was lodged there. Lieutenant F—— being then moribund, the shot was not cut out till after he died, when it proved to be what Dr. Anderson called to me unequivocally a *thirty two* pound shot. One circumstance only throws any doubt upon its having been actually a shot of this calibre, and it is this:—It was afterwards said that this shot had been fired from a gun very conspicuous, during the siege, both from its being mounted upon a high cavalier, and also from the mischief it did; and it was also said, that after the place was taken, this gun was found to be only a French twenty-four pounder, which gives a calibre of nearly twenty eight pounds English. Whether this shot which killed Lieutenant F—— was fired from this gun I do not know, but it is cer-

tain that a shot thrown from this very gun into the head quarter line, (which was an unusual distance,) and which lay during the rest of the siege near to Lord Harris's tent, was afterwards looked upon and spoken of as a thirty-two pound shot."' p. 82—83.

Chapter 6, *on Contusions and other serious injuries from shot and shell*, is a most interesting one. The subject of Contusions is one of the greatest importance, and one which has been too much neglected in the formal works on Surgery. It is an extensive and important field which as yet lies open, and we most ardently hope that some surgeon of great experience and research, will deem the subject worthy of a monograph.

The 7th chapter, on *injuries of the bones*. Amid the mass of useful information which this volume contains, it might be difficult to select a chapter to which the meed of superiority should be awarded. This one before us is perhaps *practically* the best. To publish the whole chapter would only be doing justice to its merits. We mean however to touch only a few points. Compound fractures, the result of gunshot injuries, are of course very complicated in their nature. A gunshot fracture of the thigh bone is so serious in its consequences, that it has been emphatically called *the compound fracture*. Mr. Guthrie, on reviewing the cases that occurred under his care in the British army while in the peninsula, found that not more than one sixth of the men whose thigh bones had suffered compound fracture, recovered so as to have useful limbs. Two thirds of the whole died, whether the limb had been amputated or not, and the remaining sixth dragged after them useless limbs which were constant sources of irritation.

Dr. Hennen's mode of treating compound fractures is founded on correct pathological views, and it is very important that it should be extensively known. The common practice in these cases is to reduce the displaced extremities of the bone, to swathe the limb up tightly with a many-tailed bandage, and perhaps to apply the instruments of permanent extension. This is done immediately after the accident, for in general, surgeons seem to have imbibed the vulgar prejudice that nothing is done till *the bone is set*. Now what will be the result of such a course?

The inflammatory symptoms which in this case will run very high, begin to come on. The pain increases, and the swelling too. The limb has been tightly bandaged up, and there is not room for the diastasis, and the compression produces the most violent agonies, while the surgeon stands by his tortured patient, pouring forth the consolations of philosophy, and delineating the beauties of resignation to the inevitable destiny. Well, the patient gets along to the third or fourth day, and the surgeon cautiously undoes his scultets, when lo! livid vesications are peeping between the folds of his bandage, and a large slough surrounds the lacerated wound. This is no exaggerated picture. But too many woful instances have come under our observation. Even where these horrible results do not follow, much misery and protracted suffering is brought about, by keeping the limb bandaged, and in a constrained posture during the inflammatory symptoms. Every tyro in surgery knows, that while inflammation is present in compound fracture, the formation of callus does not go on. During this violent reaction, the process of ossification is completely at a stand, and indeed during the whole of the cure, high inflammatory and suppurative action will prevent the formation of bone. This violent inflammatory stage lasts from four or five days to two weeks.—During this period, Dr. Hennen places his patient according to Mr. Pott's mode, in a relaxed position, removing the splinters of bone and other extraneous matters, applying a cloth wet with water, or with camphorated or saturnine lotion.

* * * "When the inflammatory symptoms are subdued, I then proceed more accurately to adjust the fractured bone; and to this end, place the patient on his back, a change of posture which invariably gives relief, filling up all hollows, and arranging the limb precisely after the mode recommended by Professor Boyer, and applying the bandage of Scultetus afresh, with a roller moderately tight, on the lower portion of the limb, and proper compresses along the parts. I employ the improved splints of Assalini, if they can possibly be procured; if not, I place two common long splints in the usual way—one from above the hip to the ankle, or from above the knee to the ankle, as the case may be, and the other of proportionate length on the inside; and, fixing the pelvis of the patient by a bandage to the upper part of the bed, (if overlapping of the bones renders such extension necessa-

ry,) I stretch out and retain the limb by means of tape fixed to the bottom, or what I have found answer still better, by a common tourniquet, the centre of its strap firmly fixed round the knee or ankle, and buckled over the bed post, so that, by turning the screw, the extension may be moderately made and increased as circumstances demand.—This, which was suggested to me by Professor Thomson, at Brussels, I have found of very great assistance in some obstinate and complicated cases. In this mixed mode we reap the advantages both of the position of Mr. Pott, and that of Pare and the more modern French surgeons. The patient is in general extremely tired of his relaxed position before the lowering of the inflammatory symptoms indicates the time for placing him on his back, a change from which he receives great relief; we may rest assured that the process of ossification has not commenced until that period; and that, consequently, the application of machinery to extend the limb, or splints and bandage to confine and regulate the new callus, is unnecessary, if not hurtful.

The speculative objection that may be offered against the plan of leaving the bones so long unset, is the possibility of an irregular or distorted union; but with daily attention, this can scarcely occur. I have only met with one instance of it; it was in an officer who would admit of no treatment but what he himself deemed proper. In consequence of this, he very nearly paid the forfeit of his life in the first instance, and he is now obliged to wear a high heeled boot, the thigh being considerably shortened and curved." p. 108—109.

For ten years we have been in the habit of treating compound fractures on Dr. H's principles, and the result of an extensive experience is most triumphantly in its favour. We have also extended the same principle to the treatment of simple fractures, and with equal success. We cannot dismiss the subject without again cautioning our readers against *tight* bandages in all cases of fracture. The tight bandage is a relic of the old barbarous modes of surgery; is founded on the irrational idea of moulding the callus, and is gradually sinking into disuse and oblivion.—Other modes of keeping the fractured ends of bones in contact, are now happily in general use. We must take our leave of this most instructive chapter, without having even glanced at one tenth part of its valuable matter.

Injuries of the joints are treated of in the 8th chapter, which is replete with curious and highly interesting matter.

The 9th chapter is devoted to the consideration *of contracted extremities.*

"To remedy these contractions, a variety of mechanical contrivances have been had recourse to; but I am persuaded, that the more simple the plan, provided it has sufficient power, the more likely it is to succeed. That in use at Hilsea hospital, is perhaps the most simple of any, and can be easily, and without expense, erected in every hospital. It consists of a firm wooden chair, with a strong jugum of wood, of the shape of the letter U, for confining the thigh, if the contraction is in the knee-joint; or a piece of wood with a hinge, like the letter V, if the elbow be the joint affected; some small brass pulleys made for screwing in the floor, wall, or ceiling, with a proper cord; a shoe with three loops of iron, one at the toe, and one at each side, half way between the toe and heel, and a tin or other vessel for containing some weights. The inventor of this very simple machine I do not know, but of its utility, under Staff-surgeon Coates, and Dr. Knox, I have had several most convincing proofs.

The mode of using it for a contracted knee, is as follows:—The patient being seated on the chair, the jugum, properly cushioned, is fixed over the thigh, so as to prevent it from rising, and the shoe being put on, and steadied by cords and hooks applied to the external iron loops, and fastened to the wall, a cord of whatever length may be judged proper, previously brought through one or more pullies, and, with a hook attached to the end of it, is fastened to the loop in the toe of the shoe; at its other end is the scale or vessel for holding the weight. Now, it is evident, that, on putting a weight into the vessel at one end of the cord, the other must be acted upon; and if the weights are properly graduated, force to any degree, from the most gentle, can be made use of. In the same way, the arm being secured in the hinged jugum, by straps to a proper table, the cord hooked in the jugum, and first passed through a pulley in the floor, and then through one in the ceiling, as in the other case, will have the effect of gradually stretching it. The advantage gained by each trial can be measured by a common ruler. Simple or medicated frictions, or the affusion of cold or tepid water, may be employed during the time of using the pulley, and the limb may be subjected to it as often during the day as may be thought necessary. Morning and evening are the usual periods at Hilsea, and hitherto there have been no states of contraction, except those depending on anchylosis, which have not derived benefit from it.

By a judicious application of bandages, and a strict attention to posture, in the early stages of wounds, these accidents may in most cases be prevented; and in all, their future ill effects considerably lessened; but it is a matter of serious importance, that a surgeon, unacquainted with military practice, should be put upon his guard against their voluntary occurrence, the frequency of which in the army has no parallel in the records of civil hospitals. The judgment and discretion of the surgeon will point out to him the means to be adopted in each individual case; it may not, however, be amiss to mention a few leading points. Permanent contractions in the joints of the fingers, and rigidity of the flexor tendons, will be always best guarded against

by laying the hand flat out on a splint of wood adapted to its general shape, digitated at its extremities, and properly secured; while, in the intervals of the dressings, a gentle motion of the fingers, thumb, and wrist, should be encouraged in the patient, or if, as often happens, he obstinately objects to it, effected by the hand of the surgeon himself. This should be done with tenderness and caution, wherever the injury may be; but if the alleged contraction or rigidity is attributed to a wound, through a part where the principal nerves have not been injured, and the muscles of which have evidently no power over the joint affected, all tenderness is criminality." p. 141—142—143.

The tenth chapter treats of *injuries of the blood vessels.* The commonly received opinion is, that the hœmorrhage from a gunshot wound is but trifling, and that every bleeding gunshot wound is almost necessarily fatal. A ball opening a large artery will at times give rise to a dreadful bleeding; at the siege of Saragossa, Professor Assaline saw a surgeon expire in a few moments whose carotid was touched by a musket ball. That such is not always the case the following extract will serve to show.

'How the vessels escape so often as they do, has been a source of great surprise among surgeons, and is truly wonderful. Balls buff along them, pass between them, and traverse their courses in all possible directions, but leave them unhurt. Their elasticity has been considered as in a great measure contributing to this effect, and no doubt it does; something also may depend upon their being in a state of dilatation or otherwise when the missile passes across them, but still much is left unexplained in the attempt of accounting for these phenomena. Where a round shot injures a large vessel, or a sabre divides it, (the carotid for instance, or the femoral,) immediate death is almost universally the consequence. Where a vessel of this class is opened within the cavities, no chance of recovery remains; the cause and effect are almost simultaneous, and even in the first case death amounts so near to certainty, that a bare possibility of escape is left, and no practical deduction can be drawn from a few solitary instances to the contrary. It must be recollected, however, that if a limb is entirely carried off, or if it is excessively bruised, little or no bleeding takes place: the vessels are paralyzed, and their organization almost destroyed; the effect is nearly the same if they had been actually seared, a process to which the older surgeons, who were so familiar with hot irons, often compared it. A very singular instance of escape is given by M. Larrey in his Memoires, in which an aide-de-camp received a gnn-shot wound, which cut the external carotid at its separation from the internal, and at its

passage through the parotid gland. The immediate application of pressure from the fingers of an intelligent soldier upon the spot, and M. Larrey's subsequent bandages, saved the patient. I know of an English officer who was also saved in India from the effects of an arrow wound in the carotid by the same means. In the 9th volume of the New Medical and Physical Journal, p. 95, is given the case of a man wounded in the femoral artery at Spithead, and saved by a subsequent operation at Haslar hospital; and in the 3d volume of the Medico-Chirurgical Journal, p. 2, is given an instance of the carotid bursting and being taken up on the spot by the late Mr. Fleming, a naval surgeon.

We have occasional opportunities in the field of at once trying the extremities of lacerated arteries, and these should never be neglected, although, perhaps, in every case not indispensable. These occur where a limb has been carried of by a cannon shot, and where the vessels hang out like cords from the wound, without the least flow of blood from them; or where the extremities of the wounded vessels can be seen partially throwing out their blood in the bottom of a deep wound. In these, and in all other cases of divided arteries, the least reflection upon the anastomoses of the vessels will lead us to secure both the end next the source of circulation, and the more remote extremity. Mr. Guthrie, in his excellent cases inserted in a periodical publication, has called the attention of military surgeons to this point, and his observations cannot be too forcibly impressed on their minds. But many cases occur where nature has herself completed the entire process of cure without any interference of the surgeon. I owe the following to that very able and experienced officer, Dr. Dickson of Clifton, physician to the fleet:

'Sergeant Kelly, of the 54th regiment, in the battle of the 18th of March, 1801, in Egypt, had both arms shot away at the elbow joints by the same cannon ball, and on the following evening was received, with a great number of wounded men, on board the Braakel, of which ship I was surgeon. On removing the dressings, I was much surprised to find no appearance of a single blood vessel being tied by ligature. Conceiving, I imagine, the case to be desperate, a piece of linen had been merely wrapped round each stump, and the supervention of syncope seems to have saved his life, by stopping the farther effusion of blood. The left arm, which was the most ragged, and having the olecranon still attached, was amputated; but from the low state to which the man was reduced, and the pressure of other cases, I was obliged to postpone doing any thing with the other arm; and, considering, after the time had elapsed, that there was but little danger of bleeding, and wishing to see the result, a tourniquet was merely put on loose. The second operation could not be performed until the 25th, and the dissection of the amputated portion then satisfactorily showed that ample provision had been made against the pos-

sibility of such an occurrence ; for the end of the torn artery was completely obliterated and lost in the surrounding flesh, and for upwards of an inch from its extremity was described, by the surgeons who assisted me, to be solid, organized, and carnous. I say described, for while on other duty, it had been thrown overboard. The poor fellow fevered, and died on the 4th of April.' " p. 146—148

The true practical value of the following quotation will come home to the experience of every surgeon who has seen much of wounded arteries.

" It is in the hospital that our most guarded attention is called for, and our most saving efforts made, in the expectation, or actual occurrence of secondary hemorrhage. In these cases, we must avail ourselves of every assistance which the history of surgery has from time to time presented to our notice. To pressure, to cold, and to styptics, we must give their due value, and a full trial to such an extent as prudence may warrant ; but it is to the actual ligature of the vessel that we are to trust in all cases where a trunk or important branch is injured ; and in cutting for them, correct anatomical knowlddge is our only resource. Often, unfortunately too often, we find, that even this will not enable us to meet the exigencies of actual practice, and that the mere anatomist has made but one step to being a perfect surgeon; a principal one, indeed, but no more conclusive, than the tributary arts of the chisel or the pencil are to the formation of a perfect architect. Much unmerited blame has been thrown on the army surgeons, on this as well as other points, by men who, with a minute knowledge of the natural structure, have not adverted to the pathology of wounded vessels. They prick for arteries in a dead subject, and they readily find them ; but the state of a blood vessel in a wounded limb is very essentially different from what it is in a sound state, or in a body laid on the table for the practical purposes of anatomy ; and I have more than once seen a person of this class, after having cut upon a living blood vessel with the utmost precision, and described its course with the most laudable minuteness, confess, with great surprise, that he was unable to secure it, and had actually left his patient much worse than he found him. The state of general health, the cause, extent, and nature of the wound, the diseased state of the vessels, or their natural connexions, the " engorgement" of the parts with extravasated blood, or putrid sanies, the possibility of irretrievably injuring the limb by cutting its nerves or the tendon of some muscle essential to the due performance of its motions, should all be minutely examined, and balanced in the operator's mind ; and he will have certainly the best claim to the character of a judicions surgeon, who saves the limb of his patient, if possible, but who does not hesitate between the probable salvation of it, and the certain loss of life." p. 149.

Dr. Hennen takes up the consideration of the modes of using the the various kinds of ligature. After the introduction of the ligature as a mode of arresting hemorrhage by Ambrose Parey, the next improvement in real utility was made by our friend Dr. Veitch, of London, who has attained so much celebrity by his highly valuable work on yellow fever, and whose labour in another surgical improvement will again come under our notice before we leave Dr. Hennen's book.

This consisted in cutting off one end of the ligature after it is tied ; a practice which is now very common. Dr. Hennen seems at a loss to know whence originated the practice of cutting off both ends of the ligature. He supposes it to have occurred accidentally to the mind of some American naval surgeon, who mentioned it to assistant staff surgeon Hume. The idea of employing an animal substance as a ligature first originated with our distinguished American Surgeon, Professor Physick, of the University of Pennsylvania. In 1806 he tied the femoral artery of a horse, cutting off both ends of the buckskin ligature. The wound healed rapidly, and nothing more was ever heard of the ligature. Since that period the Professor has used in all his numerous operations, ligatures made of fine white French kid, from which the grain is peeled off, cut into strips, soaked in water, and then rolled so as to become round and smooth. Since that period, (about 1813,) the short cut ligature was practised in England. It is much to be regretted that Dr. Physick, content with the universal estimation in which he is held, does not communicate more fully to his brethren, the result of his vast experience, and that he does not more manfully vindicate his claim to the many bold and original improvements he has introduced into surgery. Ligatures of silk, when cut short off at the knot are generally absorbed, yet we think the animal ligature is mostly preferable to the silken one.

Chapter XI. *Injuries of the Nerves.* We simply make an extract from this chapter, of a remarkable case in which nerves were included in the ligatures.

"A general officer, of distinguished gallantry, was struck by a round shot during a very desperately fought action, which buffing along his breast in an oblique direction, destroyed the arm, and left only the head of the bone and a very small portion of the shaft remaining. He was carried to an adjoining hovel, where the common amputation was performed under very unfavorable circumstances; the night was coming on, the supply of candles was scanty, and the enemy's shot were flying in all directions. The general was placed under my care on the day after the operation. The variety of cross accidents from fever and extensive sloughing, it is not within my purpose at present to enlarge upon, but the first attempt at clearing the ligatures, and making gentle pressure on them, was attended with pain so excruciating, as to leave no doubt that each included a nerve, or was in a certain degree connected with some large nervous filaments. This agonizing sensation was not felt except the ligatures were pulled at, and then not in the stump itself, but was referred to the finger, thumb, wrist, elbow, or even to the external skin of the lost arm, as one or other ligature might be handled. I have sometimes been led to think, that the general uniformly felt the same sensations when the same ligature was touched, as I generally made my attempts to extricate them in a regulated succession, and his complaints were often of the same succession of parts. More attentive observation, however, convinced me that this was not the case; for if any one was pulled with more steadiness than another, he complained of all the parts suffering pain simultaneously. One small ligature, if pulled in an oblique direction inwards, towards the axilla, always gave him imaginary pain about the elbow or in the skin; but if the same was pulled strongly and directly downwards, the fingers were complained of. He has, frequently after the smarting of dressing was over, with great accuracy pointed out on my arm the course of the internal cutaneous nerve, as the site of his ideal pain; often he has described that of the external; and, on one occasion, I with utter astonishment, had the general neurology of my arm and fingers traced by him. But unless the ligatures were pulled at, he had no other uneasy sensations than those which usually occur in persons whose limbs have been amputated. Once only did I ever know him to refer his pain to the seat of the sensorium itself. On that occasion, from using an artery forceps to the ligatures, on which the slide moved rather stiffly, I exerted a greater force than I had intended. He convulsively put his hand to his head, expressed a sense of exquisite pain in his brain, involuntary tears dropped from his eyes, a paralytic contraction momentarily affected his mouth, a universal paleness spread over the uncovered parts of his body; and although universally tolerant of pain, and of most remarkable equanimity of temper, he uttered a piecing cry, and exclaimed, "that the agony in his head and neck was insufferable." The state of collapse was so great, that I was obliged to send an aid-de-camp instantly for volatile alkali, and a glass of Madeira, by which he was soon relieved: but the painful sensation, and the prostration of his strength, continued

through the day. A British admiral was present on this and various other occasions, and observed to me, after I had confessed my inability to explain, even to my own satisfaction, the cause of all these sensations, "that he never saw the general dressed without applying mentally to the wonderful sympathy manifested on those occasions, the expression of Pope: 'it lives along the line.' I believe we must be content with the fact, without seeking for the explanation.

To account for the mode of action of the nerves, or the connexion between mind and body, will perhaps never be permitted us in our present state of existence: and we, who, to use the language of the Swedish philosopher, 'have calculated the laws of motion for distant worlds,' are in profound darkness on important points connected with our own. There is no doubt, however, that the principle of perception exists in full integrity in the cerebral mass, even after these "internunciate chords" are divided. The investigation of this most curious subject belongs to the physiologist: unfortunately, the little purpose to which it has hitherto been pursued is but too obvious. It remains for me to say, that, after various gentle attempts at cutting, pulling, twisting, and a graduated and constant strain by means of appending small weights, or tying the separated threads of the ligatures over little quills of plaster, and similar contrivances, fully a year elapsed before the last ligature was removed by my friend, Dr. Irwin, deputy inspector of hospitals. The general's health did not suffer; and the unanimous opinion of the best informed surgeons was, to try no violent measures or extensive incisions, but trust to constant gentle means and the slow operations of nature. An experiment of placing a ligature on the axillary plexus, or on any single nerve in the dead subject, will show what an obstinate resistance is offered after the protrusion of the medullary substance, by the subsequent puckering of the tough investing membrane, which during life will not admit of the ligature sliding off, either until the part is absorbed in course of time, or the materials of which the ligature is composed undergo some decomposition." p. 164—66.

Chapter XII contains notices *of some general affections of the system from wounds.* The symptomatic inflammatory fever is first treated of and then the hectic form of symptomatic fever. The Doctor next enters at large into the nuisances of hospitals and the preparatory steps on the entering of the sick and wounded. Great attention to cleanliness is requisite, and it is strongly enforced by our author. The practice in the Infirmary of the Philadelphia Alms House is highly commendable and worthy of imitation. On admission the patient has his hair cut, undergoes the lustration of the warm bath, with a plentiful accompaniment of soap and thorough wiping down with

towels, is then clad in clothes perfectly clean and fresh. The violent aversion of the inmates of a hospital to fresh air and free ventilation, is a fertile source of many of the forms of disease to which such establishments are peculiarly liable. In speaking of the tenacity with which the effluvium of confined and crowded apartments adhere to the substances exposed to them, Dr. Hennen says:

"The late illustrious philanthropist, Howard, gives a most striking proof of this, in his observations on the air of prisons. 'My reader,' says he, 'will judge of its malignity, when I assure him, that my clothes were, in my first journeys, so offensive, that in a post chaise I could not bear the windows drawn up; and was, therefore, obliged to travel on horseback. The leaves of my memorandum book were often so tainted, that I could not use it till after spreading it an hour or two before the fire: and even my antidote, a vial of vinegar, has, after using it in a few prisons, become intolerably disagreeable.' —'Dr. Hales,' he adds in a note, 'Sir John Pringle, and others, have observed, that air, corrupted and putrified, is of such a subtle and powerful nature, as to rot and dissolve heart of oak; and that the walls of buildings have been impregnated with the poisonous matter for years together.' Some of the villages in Portugal, which had been occupied as hospitals during the peninsular campaigns, became so saturated with contagion, that a few hours residence insured to many a paroxysm of headache or fever, if a copious bilious vomiting or diarrhea did not prevent its accession." p. 173.

Fumigation next comes under consideration. This subject we do not mean to touch.

A short extract which Dr. H. introduces from Humboldt's personal narrative shews the value of free air to the sick in confined apartments.

"A sailor," says he, "who was near expiring, recovered his health from a circumstance that is worthy of being mentioned; his hammock was so slung, that there was not ten inches between his face and the deck. It was impossible to administer the sacrament in this situation, for, agreeable to the custom on board of Spanish vessels, the viaticum ought to be carried by the light of tapers, and followed by the whole crew. The patient was removed into an airy place, near the hatchway, where a small square birth had been formed with sail cloth; here he was to remain till he died, which was an event expected every moment; but passing from an air extremely heated, stagnant, and filled with miasma, into fresher and purer air, which

was renewed every instant, he gradually revived from his lethargic state, and his recovery dated from the day when he quitted the middle deck." p. 175—176.

The Doctor's own case is so interesting that we cannot pass it by.

"I may perhaps, be permitted to adduce my own case, in further illustration of a subject, which can never be enough impressed on the army surgeon. While the British army was encamped upon the heights of Sobral, covering the approach to Lisbon, and watching the movements of the French under Marshal Masena, in 1810, it became a matter of necessity to have the whole in a state of preparation for movement at the shortest notice. Our baggage, therefore, was always ready packed at night, and we remained ready to turn out at a moment's warning. I procured what I conceived to be a very ingenious contrivance as a substitute for a bed ; I had a new blanket sewed up in the form of a sack, with a running string at its mouth ; into this I got at night, and, tying it round my neck, slept very comfortably on a piece of water-proof sail cloth. The tents under which we lay were not of British manufacture, but a very thin flimsy canvass, pervious to every blast. I continued in perfect health until the retreat of the French permitted us to get under cover of some half-burned villages. After some days spent in marching, I got into a house, and fixed my bed in a room with thirteen other officers, where we were perfectly secure from the inclemency of the weather. My birth was considered as particularly enviable, being in a very dry, sheltered corner; I still used my blanket sack, but the violence of the rains prevented the possibility of exposing it to the air. On the third day I was attacked by irregular chills and febrile heat, and before the tenth my life was in imminent danger from a combination of typhus and dysentery, and nothing but immediate removal to Lisbon preserved it. Three persons, who, in succession, used my blanket, and got into a snug corner, were attacked in the same manner, while all those who slept under the window, or in the more exposed parts of the buildings escaped all febrile affection whatever." p. 176—177

The 13th chapter, though of the utmost moment to the hospital surgeon, is not so interesting to the general practitioner. The subject is *hospital gangrene, as it appeared in some of the British hospital establishments in Spain, Portugal and the Netherlands, and of the ordinary mortification of gunshot wounds.* To give any thing like an analysis of hospital gangrene, as Mr. Hennen describes it, would lead us beyond our object. Of the ordinary mortification of gunshot injuries we have nothing

more to say than that Dr. Hennen, with that liberality of spirit which characterizes every truly great man, adopts that masterly division of gangrene, which the Baron Larry has instituted into spontaneous and traumatic. This division is fraught with the most important practical results. We dare not amputate in spontaneous mortification while the disease continues to spread. We must wait till the absorbents have commenced their silent labours; till they have marked out their field of operations by their red line. As to traumatic mortification, the rule which the Baron discovered and which the experience of many of the most distinguished military surgeons has verified, allows that when mortification is the result of a mechanical cause, and puts the patient's life in danger, we may safely amputate, even before the diseased action has ceased its progress. We would anxiously wish to impress this practical precept on the mind of every practitioner.

Tetanus is still one of the approbria chirurgiæ notwithstanding Hennen's fourteenth chapter.

The 15th chapter, which treats on *amputation*, is a long one and as might be anticipated, rich in useful precepts. In that tremendous operation, the lopping away of the thigh at the hip joint, he recommends Dr. Veitch's mode, as being by far the most preferable. We believe that very few of our surgeons have seen the little *brochure* that contains the method. We make no apology for the following extracts.

"The patient is to be placed on a table, of the height usually employed in amputation, when the tourniquet is to be applied in the groin, so as to act on the superior part of the femoral artery. The assistants will now secure the patient, support the limb, and retract the integuments, as in cases of ordinary amputation. This being done, and the surgeon placed on the outside of the thigh, he will commence his first circular incision, on the same principles as in the ordinary amputation of the thigh, and carry it through the integuments and fascia, freely into the substance of the subjacent muscles, which the assistant will immediately retract, to enable the surgeon to commence, without delay, a second circular incision, at a point somewhat higher, to be carried directly to the bone. When the muscles are completely divided, the next object is to cut the bone an inch or two below the circular incision; with this view a longitudinal incision is to be made on the inside, and another on the outside of the thigh, commencing each

incision at the top of the inferior section of the muscles, and carrying it towards the knee, somewhat more than two inches from the place of its commencement. This being done, the muscles are to be dissected from the bone, in the direction of the knee, to the extent of an inch and a half, near which point the bone must be divided. This part of the operation, it is evident, can give no pain, and will not occupy half a minute. The next step is to secure all the blood-vesssel, as in ordinary amputation, to which the removal of the leg, in the manner directed, gives the most perfect access. The blood-vessels being all properly secured, the tourniquet must be removed, and the patient is now to be placed on the sound side, when an incision is to be made, commencing about two inches above the trochanter, and continued in a direct line with that projection, to the extremity of the stump. We are now to consider the bone as a tumour or foreign body, to be removed by expert and steady dissection, commencing from below upwards, and detaching, in the direction of the acetabulum, the adhering muscles on each side. The muscles attached to the trochanter being freely cut, the capsular ligament must be divided circularly, from within outwards, or *vice versa*, according to the thigh operated on, (following the margin of the socket) and during this process, an assistant must press the bone towards the opposite thigh, which will force it from its socket, and enable the surgeon to lay hold of the head of it, and easily separate the attachments of the muscles from the inside of the bone, a step, in this operation, which ought always to be deferred until the head of the bone is thoroughly dislodged, by the division of the ligamentum rotundum.

It must now be evident, that the reason of my leaving a part of the thigh bone projecting beyond the muscles is, to enable my assistant, or the surgeon, to use it in some degree as a lever, to accomplish its own removal. From the nature and extent of the parts divided, in the second stage operation, there would be some reason for apprehension, did the surgeon not possess the most perfect access to, as well as command over, every vessel which he divides. Time is no object; the safety and recovery of the patient is the only consideration; the surgeon is, therefore, when he divides a vessel of any consequence, to make his assistant cover it with his finger, or a sponge, and deliberately to take it up.

* * * * * *

The ligatures in the course of the longitudinal wound, are to be gently and easily drawn out, laterally, and as nearly as possible on a line with the mouths of the vessels secured, and the wound is to be closed with adhesive slips. The circular wound is next to be closed, when the same principle, as to the distribution of the ligatures, is to be attended to, as recommended in the paper just noticed. The ligatures are to lie easy, attached to the extremities of the divided vessels, and particular care is to be taken in the application of the adhesive slips, to avoid extending them like vibrating cords. This wound is likely to heal with great rapidity, as the removal of the bone takes away the resistance it would give to the union of the soft parts, and

which, to a certain degree, it does in every case of ordinary amputation; and, independent of resistance, its hard, sharp edge, and rough extremity, may act on parts so acutely sensible from recent division, to a certain degree, as a foreign body, until the economy of the system adapts itself to the loss which the constitution has sustained. It is almost unnecessary to recommend, in the removal of the thigh bone by dissection, keeping the knife as close to the bone as possible, in the circular dissection, as well as in separating from above downwards, or *vice versa*. The distance at which the incision is to be begun from the superior part of the thigh, must be ascertained by the circumference of the thigh to be operated on, and then measuring the half of its diameter from the pubic side of the thigh. The mode of operating which I have just described, may be, in many cases, usefully extended to amputation at the shoulder joint."

The 16th is a long chapter devoted to *wounds of the head*.—From the frequency with which sabre and gunshot wounds of the head occur in warfare, we ought to expect that military surgery would present a noble contribution to our mass of knowledge of these injuries. A careful perusal of the chapter before us, will show that such expectations are not unfounded. Dr. Hennen, with that spirit of generalization which is the attribute of wisdom and long experience, sweeps away, at one brush, the cobweb distinctions of the schools, which he considers as "excessive refinements," and at once declares it to be the business of the surgeon in these injuries, to prevent, or subdue inflammation.

"To effect this desirable object, nothing should be omitted in serious injuries of the parts, (and who has not seen apparently the most simple, terminate seriously?) to remove every source of irritation.—We now-a-days, it is true, do not cut away the injured scalp, or procure artificial exfoliation of the uncovered bone; but I certainly think we but too often omit making ourselves perfectly acquainted with their state, by being content with a superficial incision, and clipping the hair surrounding an injury, instead of a free opening, and shaving to a sufficient extent, as practised by our forefathers. Independent of the more accurate view we procure by these means, we facilitate the application of leeches, if they may be found necessary, and of a most excellent adjuvant on all occasions, viz., cold applications, which are ever soothing to the patient, and often materially assistant to his recovery. The formula recommended by Schmucker, is nitre sixteen ounces, muriate of ammonia eight ounces, dissolved in forty pounds of cold water, with the addition of eight pounds of vinegar. To avail ourselves of the full frigorific effects of this mixture, it should be pre-

pared in small quantities, and used immediately before its temperature, (which is greatly depressed by the act of solution,) has risen to that of the surrounding atmosphere. Snow, or pounded ice, or ice water, applied to the parts in a half filled bladder, or cloths simply dipped in cold water, will often answer every purpose.

I think also that I have observed a much less frequent use of the very powerful auxiliary of nauseating doses of antimonials than their utility warrants; and, although I would not go so far as Desault and other French surgeons have done in the recommendation of them, I certainly am of opinion that, in the British military hospitals, they have not generally met the attention they are entitled to. By the employment of these external and internal means; by the use of mild saline purgatives, preceded by the common blue pill; by quiet, and by abstinence, we will often prevent altogether those troublesome puffy enlargements and erysipelatous affections of the scalp, which so often succeed to bruises. And I may here observe, that those extensive and formidable erysipelatous affections, so common formerly, are rare and mild at present in military hospitals, where the evacuant plan is duly observed, and cleanliness and ventillation properly attended to; while in the civil establishments, the affections of the skin in acute diseases are also most remarkably diminished." p. 228—229.

Remarkable cases are mentioned by our author, of injuries of the head, of the most violent and complicated character, in which the patients recovered. So many instances of this nature are on record, that we ought always to bear the *nil desperandum* as our motto. The aphorisms of Vic D'Azyr, drawn from the results of an extensive practice, and a still more extended research, ought to be remembered by every surgeon. The first aphorism of this illustrious anatomist, is, that the largest wounds of the head are not always the most dangerous. 2d. That a considerable portion of the brain may be lost, without death being the necessary consequence. 3d. That the slightest injuries of the head sometimes lead to a fatal termination. 4th. That contusions of the bone alone, sometimes extend so as to affect the brain. Fodere Tom. 3. p. 312.

The question as to the use of the trephine in depression, we consider as settled. We think it ought not to be applied, unless symptoms of compression of the brain exist.

We cannot give even an analysis of the valuable matter contained in this chapter. We offer no apology for the length of the following extract:

"Captain B——, a particular friend of mine, was wounded by a musket ball in the head at Waterloo, on the 18th of June, 1815. On the 19th, he was brought into the city of Brussels, in charge of a medical officer, who gave me a most melancholy account of his case. On approaching the wagon in which he was conveyed, I was insensibly attracted to that part of it where he was stretched, by a low protracted moan, as of a person in extreme pain, but very weak. On calling him by name, he sat up, caught me by the hand, which he kissed most fervently, pointed to his head, and then to the site of a former wound which he had received at the storming of Badajoz, in 1812, from the effects of which I had the good fortune to relieve him. He then burst into tears, but without having the power of uttering a distinct word. His countenance was pale and ghastly, and his mouth somewhat distorted; his eye languid, and suffused with blood; his skin dry, but cool; his pulse about 90, soft, and compressible. As I found that he had been bled on the field, I contented myself with providing him a billet, and giving him in charge of his medical attendant, with directions to examine the wound most particularly; to enlarge it if fracture to any extent appeared; to administer a brisk purge, and to watch most carefully the approach of inflammation. The wounded being now pouring in by hundreds, I was unable to see him before the 21st; his case, however, was reported to me daily. Much coagulated blood, and some particles of sand on which he had fallen, together with a thin scale of lead, obviously a bit of a split musket ball, had been removed. His pulse had risen on the night of his arrival to about 100, hard, and bounding, and he had been copiously bled in consequence. A cruciform enlargement of the wound had been made, which bled copiously, and gave a view of an extensive fracture of the left parietal bone. On my visit, I found him nearly as follows:—Countenance pale, expressive of great pain, referrible more to mental than corporeal suffering, mouth still distorted; eye sunk, but its pupil dilatable; the power of articulating any distinct sound lost, but the desire obviously strong; pulse 80, soft; tongue clean, bowels open, (by saline purgatives) urine copious, and with a rose-coloured sediment; skin moderately warm, and at the region of the liver bathed in sweat; the liver itself obviously projecting, and giving a painful sensation when pressed upon, evinced by his wincing from the touch.

On examining the wound of the head, I found an extensive radiated fracture, occupying almost the whole of the left parietal bone; at the centre there was a piece of bone, apparently the size of a musket ball, beat in through the membranes of the brain, and bedded in its substance, but considerably more toward the frontal region than the occipital. The unequal pressure I found to proceed from a musket ball which was wedged in between the displaced pieces of bone and the portion, which, though cracked, preserved its situation. The separated piece was obviously much more extensive on its internal face than externally, and could not possibly be extracted without the operation of trephining, to which I proceeded. The leaden wedge, and several loose splinters which jammed it in, were easily removed; and

on making one perforation with a large sized trephine, I removed the depressed portion of bone, which was forced into the brain nearly an inch and a half from the surface of the scalp. It was of an irregularly oval shape, about one inch long by half an inch broad, and fractured in such a manner, that the internal table formed a much larger part of its circumference than the external.

No relief followed the operation; he passed an extremely restless night, and the pulse rose so rapidly and so high, that the abstraction of sixteen ounces of blood became necessary. His breathing during this momentous night became, for the first time, permanently stertorous; and, when I saw him in the morning, his whole appearance indicated the most extreme danger. He lay *coiled up* in the bottom of his bed; the right arm stretched out, and occasionally convulsed; no exertion could get a sight of his eyes, or his tongue; the mouth was more distorted than usual; the skin was nearly as on the day of operation, except that the partial sweating over the hepatic region was increased in profuseness, and he seemed to wince more on pressure at that part; indeed, all the sympathies seemed to be entirely merged in those connecting the brain and liver. The stomach participated remarkably little, for he had scarcely any vomiting. His pulse alone gave me some hopes; it was nearly natural. On addressing him, he made an effort to rouse himself, but almost immediately relapsed into his former state. I directed a strict watch to be kept over him; and as my duties called me again to that part of the city where he was lodged, I visited him about midnight, and found that a spontaneous bilious diarrhœa had come on, and that he was much more sensible. He made an attempt to articulate, and pronounced audibly the letter T once or twice.

The next morning, being the 5th from the receipt of his wound, his general appearance was amazingly altered for the better; the diarrhœa still remained, and his efforts to speak were continual. On the sixth day he grasped my hand with great fervour, looked piteously in my face, and, to my inquiries as to his feelings, he uttered audibly, though with much labour, the monosyllable "THER," to which, in the course of the day, he added, "O;" and for the three next days, whenever addressed, he slowly, distinctly, and in a most pathetic tone, repeated the words, "O; THER: O; THER:" as if to prove his powers of pronunciation. His general appearance, during all this time, amended considerably, and my hopes now began to revive. I therefore resolved to write to his family, and, before doing so, I printed in large characters, on a sheet of paper, the following words,—"SHALL I WRITE TO YOUR MOTHER?" that being the wish which it appeared to me he so long and ardently had laboured to utter. It is impossible to describe the illumination of his countenance on reading these talismanic words; he grasped and pressed my hand with warmth, burst into tears, and gave every demonstration of having obtained the boon which he had endeavoured to solicit.

From this period his mental faculties gradually developed themselves; he regained a consciousness of the circumstances immediately

preceding his wound, and, in succession, of those of a more remote period. The power of speech was the last which he perfectly regained, and for which he usually substituted the communication of his thoughts and wishes in writing. Throughout the whole of his convalescent state, melancholy ideas constantly predominated, although, previous to the accident, he had been remarkable for his flow of spirits. He returned to England, nearly recovered, on the 29th of September, or 103d day from the wound. p. 248—249—250."

Chapter 17th, *on injuries of the eye, ear, face, and neck*, is replete with curious and instructive cases and precepts.

The 18th chapter is devoted to *wounds of the thorax*. The treatment of wounds penetrating the chest, is admirably and forcibly depicted in the following words:

"In whatever part of the thorax a ball, bayonet, or sabre strikes, our first object is to diminish the quantity of circulating blood, so vast a proportion of which passes through the contents of the cavity. On this the very existence of our patient depends; and we cannot, from reasoning *a priori*, fix any bounds to the quantity to be taken, or determine the intervals at which it is to flow; our practice in both respects must be governed by the effects. There lies a man with a wound in his chest; the blood is oozing from the external orifice in a constant, though slow, florid track; in his frequent and painful efforts to cough, it is thrown up in frothy arterial mouthfuls, mixed with occasional clots; his breathing is oppressed almost to suffocation; his pulse quick, weak, and fluttering; his eyes are starting from their sockets; his nostrils are distended in his efforts at relief by inspiration; and his extremities are cold, and often tossed about in fruitless anguish. This wretched being must assuredly die if surgical aid is not promptly afforded him. The mode which should instantly be adopted in such a case is as follows: Without searching after balls or fragments of bone, or attempting to ascertain the precise track of the bayonet or the pike, or expatiating (as I have seen done by some young gentlemen fresh from their studies) upon the particular vessels or their branches which may be injured; let the man lay quietly along, and lose from thirty to forty ounces of blood from his arm, by a large orifice. This done, we should remove the cloths or handkerchief which may have been hurriedly put over the wound to staunch the blood. If he has fainted during the bleeding, or if we find him in that state when we arrive, instead of administering any cordials to him, we should put our finger into the wound, and extract every thing within reach, whether cloth, ball, iron, wood, splinters of bone, or clots of blood. If the orifice is not sufficiently large, we must not be afraid of making it moderately larger, by a cautious use of the probe, pointed bistoury, or the sharp one with a small morsel of wax on the end of it; by this means we make way for the removal of extraneous bodies, and may possibly discover the bleeding orifice of one

of the intercostal arteries, which sometimes are cut, but *not at all so often* as speculative writers would lead us to believe. We now proceed to dress the wound itself. If it is gunshot, a light mild dressing will be sufficient; but if incised, the lips should be closed at once; and this treatment will be found to afford the most certain preventive to emphysema, future hemorrhage, or collections of matter. I scarcely recollect an instance where it was necessary to remove the adhesive straps, or (where it was gunshot) the usual dressings. We now lay the man down, and let him remain as quiet as possible, and in as cool and airy a spot of the barn, church, or hospital, as we can find. He will often require no farther aid; but if the case is very severe, he will possibly lie for some hours in a state of comparative ease, till the vessels again pour forth their contents, and induce fresh spitting of bloody froth, and a repetition of all the symptoms of approaching suffocation. The lancet must again be had recourse to; and if, by this management, repeated as often as circumstances demand, the patient survives the first twelve hours, hopes may begin to be entertained of his recovering the immediate effects of hemorrhage. In the after treatment of a wound of the nature here described, we shall be considerably assisted by the aid of medicine: but until the danger of immediate death from hemorrhage is over, we must not think of employing any thing except depletion by the lancet; it, and it only, can save the life of the wounded man." p. 296—297—298.

Dr. Hennen speaks of Emphysema. This subject, for the present, we pretermit, intending at a future period to lay some observations on it before the readers of the Western Journal.

The 19th chapter is *on wounds* of the abdomen, pelvis, &c.—This is a very extensive subject, and we have already rather exceeded our limits.

The remaining chapters *on Miscellaneous points connected with Military Surgery*, on *Variola*, on *Vaccination*, and on *Syphilis*, we cannot notice.

We understand an extensive view of the non-mercurial mode of treating Syphilis, is in preparation for this journal, and will be published in an early number.

In concluding, we have to return our thanks, in common with the rest of our profession, to those enterprising booksellers, Carey & Lea, for having presented this valuable treatise to the surgeons of our country. The appearance of the work is neat, and the execution correct. We most heartily commend it to the patronage of our Western practitioners.

J. M. S.

The influence of Modern Physical Education of Females in producing and confirming Deformity of the Spine. By E. M Duffin, Surgeon. New-York, Chas. S. Francis, 1830. pp. 140.

We have selected this little work, on the present occasion, on account of the great importance which the subject of which it treats is deriving from the increased frequency with which these diseases recur, in consequence of the rapid advances which our society is making in refinement and luxury. No species of bodily deformity is more frequently met with, at least in the upper walks of life, than curvature of the spine. In addition to the tormenting reflections which are perpetually haunting the unhappy subject of every species of physical deformity, this particular form is accompanied with many unpleasant associations, which makes it peculiarly distressing to the female mind; and what should give the subject additional interest, it is most likely to fall upon those whose quick perceptions, refined sentiments, and cultivated minds, render them peculiarly sensitive to the real or imaginary prejudice which results from it.

The subject is one with which every parent and every instructor of youth, should be familiarly acquainted, for the evil is so insidious in its growth, that it generally assumes a very considerable degree of importance, before the anxieties of the parents are sufficiently excited to call for the advice of the family physician. For these considerations we have selected this work with a view of directing the public attention to an evil which is daily acquiring additional importance, and which must necessarily be very imperfectly guarded against, if the prevention, as well as the remedy, be entirely entrusted to the medical profession.

In the 1st and 2d chapters, the author treats of those causes of deformity which grow out of sentiments and habits that are almost necessarily connected with a state of social refinement. He denies that permanent inclination of the spine necessarily

depends upon original debility of constitution, or upon active and manifest disease, although certain constitutional and hereditary taints favor its formation very much. In the absence of such constitutional debility, it may be traced to sedentary and erroneous habits, "to an injudicious system of school discipline, to neglect or actual mismanagement of the physical education of young females, to the vitiated state of public taste, with respect to the perfection of female attire, and to many absurd customs and useless restraints of society, derived from the vain and ludicrous efforts of modern fashion to attain the very highest point of refinement."

Females are peculiarly liable to diseases of the spine, in consequence of the delicacy of their structure and constitution. This tendency is still further increased by the sedentary habits to which the sex are necessarily confined. The early period of life at which females are generally married, requires that their education shouldbe completed within a period of time very short, in comparison with what is devoted to that of young men.

The increased diffusion of knowledge which distinguishes the present age, increases the quantity of information to be expected from a young lady of finished education, while the tendency of fashion and refinement tends inevitably, to abridge very materially, the period for its acquisition. The late hours of rising so common in fashionable life, the mistaken tenderness of mothers, which prevents them from adopting or enforcing a systematic system of instruction, the minute attention to fashion which descends to the regulation of the most trifling regulations of dress and deportment, with an anxiety very frequently proportionate to their insignificance, are so many circumstances calculated to divert the attention of young females from more serious studies, and to require them to encroach upon those hours which ought to be devoted to exercise and recreation.

"Lastly, much time," says our author, "is lost in female seminaries in unskilful attempts to prevent, or unavailing efforts to correct deformities of the person;" a labour that at least may be said to be useless, since with a judicious system of physical education, few cases would occur, requiring any remedy but the use of natural means.

In addition to these general causes connected with the present state of society, there are others which tend more particularly to influence the modes of education, and thus to favor the formation of diseases of the spine. Of these, one of the most considerable is the great competition which is to be met with on the subject of teaching. Very few of the immense number of competitors for public favor in this department, are sufficiently acquainted with the principles of education, to superintend the education of youth, and of those who do, a still greater proportion are ignorant of the principles of physical discipline, or at least consider it as altogether a subject of minor consequence.

The estimate formed by the public of the qualifications of a teacher, is generally superficial, and is founded rather upon the amount of facts, or of words committed to memory, than upon the store of useful ideas, or the formation of those habits of thinking which are the true object of education. With the full knowledge of this erroneous impression on the part of the public, the first object of the great proportion of teachers is, to meet the expectations of parents and friends; and to effect this, children are subjected to a confinement perfectly incompatible, either with bodily health, or with a vigorous exercise of the faculties of the mind; while to preserve the attention under a course so inconsistent with the dictates of nature, the feelings and passions are enlisted to a degree that is scarcely less injurious. Between the want of exercise, and the excessive mental excitement, the general health suffers, and a foundation is laid for a great variety of local diseases.

The following is the author's description of the most common deformity of the spine:

"The right shoulder projects more than is natural, and is, in common parlance, said to be 'growing out.' The course of the central groove of the back, deviates from a straight line; a greater distance is observed between a given point of the original perpendicular *spinal* line and the top of the elevated shoulder-bone, than between the same point and the corresponding top of that of the left side. These appearances, together with a remarkable prominence of the lower-third of the shoulder-blade of the distorted side, alarm the parents, now

surprised at the extent to which the deformity has proceeded without having attracted much notice.

The gait of the young person appears awkward and shuffling; her clothes cannot be made to sit well upon her—they appear to be drawn to the right side. The sash encircling her waist, is observed to dip towards the same side, while the right breast presents a remarkable fullness, and the corresponding collar bone displays a proportionate elevation.

In short, she is crooked; her back-bone is distorted. In a multitude of instances, even in this early and remediable stage, absolute and permanent deformity can be prevented only by care and attention of no ordinary kind, directed upon principles derived from a thorough knowledge of the nature of the parts affected. In proportion as the inclination takes place in the upper part of the back, between the shoulders, nature, in order to counterbalance the evil, and preserve the equilibrium of the body, calls into action the muscles of the lower part of the spine; these operate with proportionate power on the opposite side, so that, in confirmed cases, there is in fact a double curvature produced.

As the distortion advances, a similar counterbalancing power is exerted by the muscles attached to the spine in the neck, and a third, or *upper* curve, is then formed, so that the spine presents, in fact, a serpentine appearance, inclining to each side alternately. The ribs, in consequence of the alteration in the course of the spine, deviating from their true direction, partake of the change instituted. Finally, the basis, or *pelvis*, on which the spine rests, becoming involved, produces an inequality in the size of the hips, the contrary of that which presents itself in the shoulders, and causes the whole body, when viewed from behind, to appear as if twisted on itself."

When these symptoms are first observed, the child should be immediately removed from school, and a different system at once adopted. But unfortunately the first recourse is to the different modes of pressure by means of stays; &c., &c, which, so far from remedying the evil in question, superadd some other deformity, while the injudicious system of education is kept up until the evil becomes irreparable.

Chapter IV. gives a general idea of the mechanism of the spine, and of the influence of artificial modes of support in producing deformity.

The spinal column consists of 24 small bones, denominated vertebræ, containing a canal for the transmission of the spinal marrow. The bodies of these bones are united by a compressible, but very elastic substance, of a cartilaginous nature, and they are articulated by means of processes so constructed, as to

admit a very considerable degree of motion in almost every direction. This column is maintained in the perpendicular direction, by the elasticity of the intervening cartilage, and by innumerable muscular fibres, arising from the bodies and processes of the vertebræ, and inserted into those above. So admirable is the adjustment of these muscles, and of this cartilaginous bond of union, that by the instinctive action of the one, and the mechanical operation of the other, the whole pile is kept perfectly upright, in regard to its lateral aspect.

After this general view, the author lays down two principles, from the consideration of which, we may understand how the circumstances already enumerated, may operate in producing deformity.

"Now it is a law of the animal economy, that whenever the natural and healthy operations of any organ, or set of organs, are either not regularly, or not sufficiently exercised, the organs whose operations are so disturbed or omitted, suffer material injury in a proportionate loss of their capabilities of action. In some instances, indeed, the derangement so produced gives rise to active disease.

Again, organs, when they are too much exerted, or when their natural operations are kept up beyond certain limits, become fatigued and incapacitated for the performance of their wonted office, until by repose they are enabled to obtain a renewal of their exhausted nervous or vital energy." p. 41.

Now the effect of the modern restraints of female attire is, to prevent the free action of the muscles of the spine, and by the artificial support thus given, to restrain, in a very considerable degree, the exercise of that instinctive power by which the balance of the body is preserved. The muscles thus not only lose their power of performing their natural actions, but frequently become wasted in their substance. Consequently, when the artificial support is removed, the individual complains of weakness, and of inability to support herself erect.—Under these circumstances, the sudden discontinuing the use of the stays, may tend to increase, rather than prevent the deformity produced by their use.

It is needless to refer to the injurious effect produced by tight stays upon the viscera. The consequences of their pressure

upon the lungs, stomach, and other viscera, and the interruption of their functions which must ensue, are too obvious to require comment. We are not disposed to recommend their discontinuance. Fashion has rendered them necessary; but when they are used to improve the form, or indeed, with any other object than the simple adjustment of the dress, not only are they injurious, but they defeat the very object which leads to their employment.

In the 5th chapter the author inquires if unequal muscular action is ever sufficient of itself to produce deformity.

* * * "I have a case of lateral curvature before me, where the girl wore no corsets or other restraints of dress before she was fourteen years of age, lived till then in the country, and had full permission to roam about, almost at pleasure. This young person has a slight congenital, perhaps hereditary, deformity in the feet, to which circumstance I would entirely attribute the lateral curvature: for just as lateral curvature may produce a shuffling manner of walking, so a shuffling manner of walking may in time produce a lateral curvature. In like manner the advanced shoulder, and halting step of the ploughman, are to be attributed to one foot being always in the furrow, and to the inequality of the soil on which he is accustomed to walk. Sailors have generally the spine bent *forwards*, a characteristic which Smollett has not neglected to bestow upon that *beau ideal* of a British seaman, Commodore Trunnion. This stoop, or bend in the back, is most remarkable in men who serve on board the larger vessels of the line, owing to these vessels consisting of several decks, the height between which is not sufficient to permit a man of the ordinary stature to stand upright. It is notorious that artisans generally contract some bend or twist in their backbone or limbs, so characteristic as to enable a practised eye easily to judge of their respective pursuits without any other information than what is derived from their appearance. Clerks, and other sedentary persons, frequently contract the lateral, or twisted curvature. 'I have seen,' says Mr. Bamfield, 'instances of *lateral curvature* produced by a habit of long continued inclination of the body to one side, after the adult age, in insane persons; in the young and growing this is a more common event.—Young artists of both sexes are liable to lateral curvature from this cause, from adopting a habit of sitting before their paintings and drawings, with an inclination of the body to the left side.' * * * Dr. Harrison informs us, that among the colliers of a particular mine in Lancashire, who are obliged, from the thinness of the stratum, to sit in a bent posture, and to force their right side into the vein, while digging out the coal, the spines of all of them become, in process of time, curved towards the right side." p. 59—61.

The most curious instance of this kind is found in the fact, that among the male inhabitants of London, the habit of giving the wall by the left, and taking it by the right shoulder, has given an obliquity to the trunk, by which they are easily distinguished from strangers.

In chapter VI. the author inquires into the changes which take place in the vertebræ themselves, favoring the production of deformity.

The spine, we before remarked, consists of 24 vertebræ, united by a compressible, elastic substance, admitting of a very considerable extent of motion. As we descend in the chain, and the weight to be supported increases, the vertebræ become larger, and the processes to which the muscles are attached longer, so as to enable them to act with more power.

In childhood, both the bones, and their intervening cartilages, are much softer than in after life; indeed, in childhood, the processes are attached to the bodies of the bones, by a cartilaginous bond of union, which gives way to a deposition of bone, as life advances, and a necessity for a firmer structure occurs.

This change of cartilage into bone is effected in the following manner. Small vessels conveying red blood are seen pervading the white cartilaginous substance which is absorbed in the vicinity of the artery, and its place supplied by a bony deposit from the arterial extremities. This supply of red blood, as it is uniformly present where the process of ossification is going on, would appear to be indispensable for that purpose. Now any one who has observed how defective is the formation of red blood, and how imperfect its distribution in the extreme vessels of those who devote themselves to hard study without sufficient exercise, will readily comprehend also how, under similar circumstances, the ossification of the spine will take place very imperfectly, and will at once discover how the restraint, excessive study, constrained positions, and the excitement of the passions in our female boarding schools, must favor the production of the disease in question. The following extract will show how this deformity usually takes place.

"The cartilages, ligaments, and muscles, being supplied with nourishment from the same source as the bones, suffer equally from the same privation. The muscles become not only more languid and feeble than they ought to be, but are sooner exhausted. The indications of lassitude, necessarily, from these causes, pervading the general carriage of the child, being attributed by the teacher to indolence, is attempted to be combated by a rigorous enjoinment of some particular, generally the erect posture. The suffering in consequence of this rigor soon becoming considerable, the child endeavours to render it tolerable by means of alternate efforts at balancing. A person seated upon a stool or chair, may throw the weight of the head, trunk, and upper extremities upon either of the hips, almost without any apparent deviation of the spine from the perpendicular. This is effected by drawing the spine to one side, and leaning the head and neck slightly to the other. I am persuaded that in this manner girls often rest themselves when writing, or when playing upon the piano and upon the harp, though they are thought to be sitting sufficiently upright. The right hand, being in all of these occupations that which requires most scope for motion, gives rise to the right shoulder being raised, and, in order to facilitate this, to the balance of the body being maintained on the left hip. The curvature that arises from these habits, is thus directed to the right side."
p. 76—77.

In chapter VII. the author offers some valuable reflections upon the subject of the education of children. Parents and teachers often seem to forget that "doubling the power does not double the effect;" that the mind like the body has its periods of futigue, and that if its exhausted powers are urged to still further exertion, so palpable a violation of the dictates of nature must be attended with the most injurious consequences.

The same mode of reasoning may apply to the mode of education. In childhood the judgment is weak, the curiosity ardent, and the memory strong *when assisted by the imagination, or employed upon sensible objects.* These facts obviously point out the system of education proper for children of an early age, and would lead us to suspect that when their minds are occupied upon ideas with more complicated relations, the time is at least lost, if indeed the regular development of the mental faculties be not injured.

The author very properly cautions against the excessive cultivation of early talents. They are generally premature, and

almost invariably, if fostered, lead to mental exertions that prevent the healthful development of the body, and frequently to deformity, despondency, or an early grave.

From the 9th chapter we select the following remarks on the subject of different modes of exercise:

"Dancing practised to excess, is very apt to injure the finer proportions of the limbs, by developing too fully certain of their parts more particularly called into action. Thus, in our best opera dancers, the ankle and calf of the leg are often clumsy and Herculean, compared with the slender, skinny arms of such persons. Professional dancers, moreover, are seldom remarkable for grace in any of the ordinary movements of life. In the performance of these they are generally constrained, formal, and automatic. The bad effects on the form of the foot, resulting from the force with which it is extended, gradually stretching its ligament beyond the point whence, even if possessed of more elasticity than they are, they can return, are well known. Very few opera dancers can boast of a good instep off the stage. When the foot is placed on the ground, the arch of the instep yields to the weight of the body, and allows the concave part of the sole to rest on the same plane with the toes. When, therefore, these persons walk, they never rise on the toe, nor bend the foot. From their habit of turning the toes very much outwards, they acquire a peculiar mode of walking, usually denominated 'a strut,' by some 'shailing,' a term more properly applied to walking sideways.

These observations apply to the bad tendency of dancing practised to excess, and are intended to point out how questionable is the propriety of devoting much time to this accomplishment, with a view to the attainment of more than graceful and natural habits of motion.

* * * *

The young person wishing to use the dumb-bells with advantage, must stand perfectly erect, place the heels together, and point the toes slightly outwards. The bells being grasped one in each hand, must be raised simultaneously towards the front and centre of the chest, and approximated, so that the corresponding balls of each bell may touch each other respectively. The bells are now to be moved straight forwards, but not forcibly, to the full length of the arm, and, with the arms kept extended, allowed to drop with sufficient force to swing them gracefully round the body. The arms must be gently turned out in their course downwards, so as to make the balls on the outer or thumb side of each hand approximate or strike against each other behind the back, the elbow joint being kept as straight as possible. The bells are then to be again brought slowly round to the front and centre of the chest, and to be moved in the same manner for

twenty, thirty, or any number of times that may be deemed necessary.

The usual fault in the mode of using the dumb-bells consists, either in not turning the arms outwards, as they are swung round the body, or in twisting them inwards. The fault in either case causes the child to elevate the shoulders in endeavoring to make the balls strike each other behind the back, and at the same time to thrust forwards the head and neck, and otherwise defeat the purpose for which the exercise is designed.

The weights may also be gradually raised at the full length of the arm from the sides, till such time as they are brought into contact above the head ; then, the hands being turned outwards, allowed to fall slowly and steadily backwards, until the back of the hands meet, as in the former case.

Used in either of these manners, the dumb-bells are found a most efficient means of calling into salutary action all the muscles of the system. By their influence the chest is gradually and equally expanded, the shoulder bones are properly depressed and drawn towards the spine, and the symmetry of the back is otherwise improved in a remarkable manner.

Other exercises beneficial in their tendency, as walking on a rope not elevated more than fifteen or twenty inches above the ground, balancing such bodies of little weight, as a work-basket, pincushion, small bag of sand, and the like, upon the head, or a rod in each hand alternately, may be advantageously adopted as a part of school discipline for the prevention of this kind of deformity. These and similar amusements, being achievable only by an equal exertion of the muscles, at the same time that they tend to strengthen these organs, tend also to correct as well as prevent any deviation from the naturally erect form." p. 105—110

We shall close our review with an extract, pointing out the impropriety of attempting to correct deformity by the use of mechanical expedients which may have a tendency to produce irregular muscular contraction.

"If the shoulders be braced by means of straps to a plate of iron placed on the back, it is evident that the action of the muscles, with which nature has endowed the body for the express purpose of holding the shoulders in a graceful position, will be superceded, and, in accordance with the general law before enlarged upon, will, from want of due use, become proportionately incapable of performing their wonted office when the strap is removed. The muscles on the forepart of the chest, whose actions are destined as an equalizing and antagonist power, will, from being excited to resist the force exerted by the straps, become increased in strength. When the use of the straps is discontinued, the shoulders will not only be returned

to the position which they held previously to the application of the plate, but be further drawn forwards by the power gained by the muscles on the forepart of the chest, while opposing the action of the straps. No constraining force, then, should be employed with a view to keep the shoulders back." p. 120—121.

We cannot close this review without recommending this little work to the attentive consideration of all entrusted with the education of youth. Its simplicity and perspicuity adapt it to every capacity. It should always be borne in mind, that the prevention of disease or deformity is far easier than their cure. An attention to the dictates of nature, which are so simple and perspicuous as never to be misunderstood, except by minds under the influence of prejudice or passion, is all that is requisite for the former. The latter is far more complicated, and requires an education proportionate to the progress of society in refinement and luxury. To this, it is the interest of the physician to confine himself; and to this it appears to be the settled determination of the public to confine him. For although the medical profession have at all times manifested a generous disposition to promote the interests of society, by pointing out the simple rules by which health is to be preserved, yet their instructions are always received with distrust, and if they venture to give them a particular application, an expression of suspicion very generally intimates that they are stepping beyond their province. Restricted, therefore, as we are in our attempts for promoting the interests of society, we are at least disposed to fulfil our duty by informing them, where the information may be acquired, which they are unwilling to learn from the physician; and where they may ascertain that disease and deformity, so far from being the work of nature, are acquired at an expense and labour, that is very rarely bestowed upon the acquisition of any other object, however valuable.

F.

Miscellaneous Intelligence.

ANALECTIC, ANALYTICAL, AND ORIGINAL.

I. Analectic.

1. *Incontinence of Urine cured by an Operation.*—Communicated to the London Medical and Physical Society, by Mr. Brodie.

Mary Conner, a respectable young woman, æt twenty, laboring under incontinence of urine, consulted me some time since, in the expectation of receiving some relief from symptoms which rendered her existence miserable. She gave me the following statement of her case:—That she had fallen down stairs about three years before, and had injured her back in the fall; from which period, up to the time of placing herself under my care, she gradually lost all command over the contents of the bladder; she had previously taken the advice of many professional men in Cork and elsewhere, without receiving any benefit, and, at the time above alluded to, suffered extremely from excoriation of the labia, and inside of the lower extremeties, from the constant flow of urine. The opinion entertained of her case was, that the symptoms were caused by paralysis of the neck of the bladder, produced by the fall, and that little or nothing could be done for her relief.

On examination, I found the urethra so much enlarged (so that, unless the power of retaining the urine depended entirely on the sphincter vesicæ, no check could be given whatsoever, to its constant flow) as to admit with facility a full sized rectum bougle. The sides of the canal lay quite loose and flabby, appearing to have entirely lost the power of contractility. * * * Every plan that could be devised, and every medicine that could be thought of, were employed, but without producing the slightest improvement. I then, a second time, proposed my former plan of treatment, which was agreed upon, and the operation was performed in the following manner, in the presence of my friends, Drs. Pitcairn and Bull.

Having placed her on her knees on a table, with her head downwards, and dilated the vagina with Weis' speculum, I introduced the index finger of my left hand into the urethra as far as the neck of the bladder, and having passed a sharp-pointed bistoury to the end of my finger, then raising its point, and cutting through the side of the ure-

thra, so as to form one cavity of that canal and the vagina; I removed a portion of the urethra, the entire length of the canal, and of a triangular shape, with a knife-edged scissors. The lips of the wound were then brought together by means of pins, and secured by the interrupted suture.

The pins were all removed at the end of eight days, leaving the parts perfectly united, and the woman completely restored, having entirely recovered the perfect control over the discharge of urine.—The urethra at this time has to all appearances recovered its natural tone and size.—*Lond. Med. and Phys. Jour.*

2. *Recovery from Ruptured Uterus.*—Mrs. Cuthbert, aged 32, was taken in labor whilst on a journey through this town, on the evening of the 6th August last. The full period of gestation was completed, but notwithstanding her advanced state of pregnancy, she had travelled upwards of 200 miles on foot, within a very short period. On her arrival here she called in the aid of a female practitioner, who remained with her during the night of the 6th, and who described the presentation to have been natural, and the labor forward and rapid in progress. This person stated, that during a pain, from which she expected the immediate expulsion of the head of the child, the patient at the time on her feet by the side of the bed, a gush took place, the head of the child receded, and the labor pains ceased entirely. This took place about 5 o'clock in the morning of the 7th. About 7 o'clock, I was called, and found the poor woman in great distress. The floor of the small apartment had been flooded over. Drops of cold sweat stood on the patient's face, which was ghastly and anxious. She complained of constant "tearing pain." Her breathing was labored and oppressed. Her pulse 130, small, and feeble. She was vomiting dark-colored fluid. The short history which I obtained of the case, at once convinced me of its nature. On laying my hand on the abdomen, the form of the child could be distinctly felt through the parietes. On examination, I found the *os uteri* rigid, and so closely contracted, as hardly to admit the point of my finger. Passing my hand forward to the right side of the cervix, I readily ascertained the commencement of the rupture, which extended towards the fundus. The child was high up in the abdomen. Under these circumstances I thought it advisable to summon further aid, and Mr. Dalton, an able and experienced surgeon of this town, soon joined me. That gentleman at once agreed with me as to the nature of the mischief. On introducing his hand, he found the laceration to be as I have described it; and whilst tracing its extent, he fortunately came in contact with one of the child's feet. He soon got hold of the other, and brought both down. The extraction was proceeded with gradually and firmly; but the great difficulty was found to consist in bringing the head through the outlet of the pelvis. The pelvis was of contracted dimensions; and I learned that her former labors, two or three in number, had been attended with great difficulty. We found the obstruction to proceed from the superior maxillary bone of the left side, being fixed on the symphisis pu-

bis. The head of the child thus lay obliquely in the pelvis; the right ear nearly opposite the sacrum, and the chin and mouth being the nearest presenting parts. We tried, by fixing the fingers on the lower jaw, to place the head in a better position, or to extract it, without success. Perforation through the basis of the cranium could, in this case, we considered, little facilitate its passage. We found the long forceps of little use, it being difficult to fix them properly. The vectis was applied on the right side, over the external orbitar process, reaching to the coronal suture. The long-continued and repeated efforts which were persevered in before the cranium could be moved, were extraordinary. After two hours' hard application, the head was forced down. The child had been dead for many hours. The vectis had borne in that side of the frontal bone upon which it was fixed.—The placenta was soon afterwards found detached and extra uterine, and was easily extracted. It required some care to prevent protrusion of the intestines along with the placenta. There was no farther flooding. The patient still complained of great pain and tenderness. She was much exhausted ; and neither her general appearance nor pulse augured favourably of the termination of her great sufferings. The difficulty of breathing was of course much relieved. Opiates were given at intervals throughout the next four-and-twenty hours, and some subsidence of the vomiting and violent pain were procured. On the following morning, more to my surprise than otherwise, I found the severity of the symptoms, generally, ameliorated. The vomiting had almost ceased; the tenderness of the abdomen had not increased ; still I thought it a safe precaution to apply twenty leeches, and keep up fomentations. Saline mixture with laudanum was administered every four or six hours. On the 9th, the countenance began to lose much of its anxiety, and the tenderness and pain to decrease. The bowels were readily relieved by a small dose of castor-oil, and the urine was voided with ease. The pulse was also much improved, being considerably less frequent, and softer. Though we naturally calculated on some injury to the soft parts, from the strong application of the vectis, I was agreeably surprised to find that no sloughing, or other inconvenience had taken place. On the 18th day she was able to sit up, and by the 30th was able to resume her journey.—*Lond. Med. Gaz.*

3. *Alteration of the Blood in Yellow-Fever.*—At a meeting of the College of Physicians, a paper was lately read, entitled "Observations on the Blood," by Dr. Stephens. The object of the author was to prove that the proximate cause of yellow fever was to be found in the changes which the blood undergoes, and that the true remedy for this and other fevers, consists in opposing by proper means those changes. * * * * *

"On opening the heart," says Dr. Stephens, "we find, instead of blood, a dissolved fluid, nearly as thin as water, and almost as black as ink. In both the cavities of the heart the fluid is equally black, and in the whole vascular system, all distinction between arterial and

venous blood is entirely lost. In this state it is quite evident that the blood is incapable of stimulating the heart or supporting life." In the progress of the fever, the changes of the blood succeed each other in the following order:—1st. The blood loses its solid parts, and becomes thin. 2d. It loses its saline principle, and becomes black and vapid. 3d. Its preservative elements are now dissipated, and it goes fast to decay, the more rapidly, says Dr. Clanny, as no new blood can now be formed. 4th. It loses its vitality, and is incapable of supporting life.

* * * The treatment consists in allaying the excitement, if any exist, during the first twenty-four hours, by venesection, mild purgatives, and sponging the body with cold-water; the saline medicines, which are considered the best agents for preventing the decomposition of the blood, are then exhibited in small and repeated doses. Those usually preferred are the Rochelle salts, and the carbonate of soda, potass, and ammonia, &c. This practice was tried in the hospital at Trinidad, in 1828, a season peculiarly sickly in that island.—It was applied in three hundred and forty cases, including the remitting and yellow fevers, admitted into hospital, after the symptoms had existed variously from six to seventy-two hours, with such success, that not a single case proved fatal. Dr. Stephens says it can be clearly proved, in the West India fevers, that those patients that are left to nature have a better chance of recovery than those who are treated with emetics, calomel, or antimony, opium, or acids ; and that these remedies decidedly increase the very evils they are meant to relieve, and add greatly to the mortality of fever in hot climates. Dr. Clanny maintains the same opinion as to their effects in the typhus of cold climates. Dr. Stephens states, that those who attend only the solids and the mere excitement, can never cure a single case of yellow fever that is really severe. From the results of this plan of treatment, not only in their hands, but in those of Dr. Stedman, of St. Thomas's, and Mr. Greatrex, of Trinidad, it must be, as it deserves, generally adopted. Whilst these fevers were considered as diseases of the solids only, and treated as such, no efficient control could really be exercised over them. This is a proposition the most determined localist cannot controvert. Wherever this treatment has been tried, its authors assure us that these hitherto terrible scourges have been disarmed of their terrors.

4. *Dr. Middlemore on Amaurosis.*—The following remarks are chiefly on the exhibition of strychnine in that formidable malady, amaurosis. It is a remedy which is now in some vogue, not only with oculists, but with physicians also, in the palsy-cases of middle and advanced age, whether the affection be of the retina or of one side of the body, of a solitary muscle or a large portion of the material frame. The very nature of these cases—we mean their connexion with advanced life, and their dependence on the wear and tear of the machine—precludes the hope of any remedy or class of remedies proving extensively and permanently useful. Medea's cauldron

would suit such cases, but short of the youth-restoring drug of the enchantress, there is nothing, alas! that will give elasticity to the withered sinew,—plumpness and vigor to the wasted muscle,—or the finely-tuned sensibilities of adolescence to the palsied nerve. Nevertheless, there are, undoubtedly, some cases of palsy and amaurosis—we fear they are fewer than is imagined—that are benefitted by the exhibition of the strychnine, or stimulating medicines of that class. The discrimination of these must be a matter of experiment and experience. We will give the results of Mr. Middlemore's.

"If a patient has overworked the eye by a long-continued action, confined to the inspection of objects of the same color and description, an enfeebled condition of retina (just as we produce an exhausted state of muscle by over-exertion) will take place. If a man subject his eye to an unnatural stimulus, by looking for many hours daily at bright substances of the same or nearly the same color,—or to sudden transition from an artificial glare to comparative darkness (as miners) —or to a diminished stimulus, as by working in dark rooms, or places imperfectly supplied with light,—or to any cause allowing the visual textures of the eye to remain for a long period in a state of inactivity, as takes place where large opacities of the cornea, and fully formed cataract exists,—the power of the retina will be partially destroyed; its susceptibility to the stimulus of light diminished; but in none of these cases will there be found any structural change in the retina or the optic nerve, any congestion of vessels, or any discoverable alteration from a healthy and natural condition: nor will the system, in all probability, be found affected; no altered state of health sufficient to account for the dimness of vision, will be found to exist. At some kinds of employment it is necessary for the individual to work with the head bent forwards, declining, or the body so distorted as to favor the too liberal flow to the eye, and retard its return,—inducing what is termed congestion: a distended state of vessels, unfavorable to free and active circulation; a condition of eye which is also frequently induced by the investigation of minute objects by the aid of powerful glasses. Loss or diminution of the power of vision sometimes comes on from certain causes which diminish the vigor of the constitution generally—as, for instance, after profuse salivation, long-continued suckling, menorrhagia, &c. In all these cases, I believe, the strychnine is calculated to produce great and permanent advantage, in combination, of course, with other remedies suited to the particular exigences of the case,—for example, if the retina be weakened in consequence of diminished vigor of the system, remedies adapted to strengthen the system, and a removal of the cause enfeebling it, might be joined to the local application of the remedy in question. But the power of the retina will not always return with the returning strength of the system;—in such cases the strychnine is singularly valuable, producing, with wonderful rapidity, the restoration of the organ of vision. Strychnine, given internally, does not produce the same beneficial effect as when applied externally. The mode of using it is already before the profession. After having tried it in a variety of

ways, and in different situations, I have not been able to discover a better method than that of blistering the skin above the eye-brow, and, after having carefully removed the cuticle, I sprinkle the powder upon the raw surface, taking care to pass a spatula upon the part so sprinkled, to secure it against removal, and ensure its absorption: a piece of lint, not greased, should afterwards be bound upon the part. The quantity with which I generally commence, is the twelfth of a grain upon each side, daily augmenting the quantity, as the patient is able to bear it, to two thirds of a grain upon each blistered surface. Its first effects are—slight pain in the head, increased power of vision, and severe smarting pain of the part upon which it is applied. Some patients cannot bear its application; others require great care, and a very gradual augmentation of the quantity to enable them to bear it; whilst others will admit of its application without experiencing any other uneasiness than what arises from its action upon the sore. It is not necessary I presume, to detail cases in support of my views; such a plan would greatly extend my observations, which I have been studiously anxious to limit.

I will now, for a short time, draw the attention of your readers to those cases in which the employment of this remedy would be useless or injurious. If the amaurosis be dependent on any morbid condition of the brain; any alteration of the bony structure; any tumor or other substance pressing upon the optic nerve, the effects of former inflammation, such as opaque deposition or partial disorganization, the effusion of blood or morbid growths, the enlargement of the vitreous or displacement of the crystalline humor, producing pressure upon the retina; a varicose state of vessels, as a consequence of distention so continued as to impair their tonic and elastic properties; inflammation of, or disease of, those parts encased by, or anterior to, the retina,—no benefit could be expected to result from the use of strychnine; but, on the contrary, in many of the cases, material injury might succeed its employment."—*Medico-Chirurg. Review.*

5. *Gonorrhœa alternating with Bilious Remittent Fever.*—By Lewis Campbell, M. D., of Moutton, Alabama.—On the 23d of July, 1827, I was called by Mr. ———, who had been affected with gonorrhœa three years since; and as he had been obliged to ride some distance every day on business, the symptoms were somewhat aggravated. He suffered greatly from ardor urinæ and chordee. The discharge of matter from the urethra was very profuse, and considerable general excitement was present. His bowels were freely opened with sulphas magnesiæ; one drachm of balsam of copaiva was directed to be given three times a day, and a low diet enjoined. He obtained sudden relief of the ardor urinæ from this course; but a profuse discharge of matter, and the retraction of the urethra, remained. His business calling him from home, he was under the necessity of riding some distance every day till the 26th, when he was attacked with a bilious remittent fever. During the evening he felt languid, sick at the stomach, &c. At eight in the evening he was attacked with a violent

chill, followed by fever. During the chill the gonorrhœal discharge was suddenly suppressed. On the morning of the 27th I found him entirely free from all the symptoms of gonorrhœa. He assured me he felt no inconvenience from that source.

The fever continued till the 30th. During this time he enjoyed entire exemption from the gonorrhœal symptoms. On the 30th, his general health being much improved since the preceding day, he escaped fever, but was again attacked with gonorrhœa and chordee. He was again put under treatment for those affections. His general health continued to improve till the 2d of August, when from exposing himself to the sun on a short ride in the heat of the day, the bilious symptoms returned; and he then had chills and fever two days in succession. During the first chill the running was again suppressed; and he was completely relieved from any uneasiness in the urethra during the continuance of the febrile symptoms. On the 14th he experienced exemption from fever and a return of gonorrhœa. His general health continued to improve from this period, though the affections of the urethra proved somewhat lingering. His stomach rejected the balsam in any form, and scarcely tolerated the presence of any medicinal substance whatever. Regimen and time effected a cure. Was the suppression of the gonorrhœa during the fever, and its immediate return when the fever yielded, a mere coincidence? Or was it a metastasis of morbid action from the urethra to the stomach, and from the stomach to the urethra? If the latter, does it not favor the opinion of the physiological school relative to the non-specific nature of venereal affections?—*Bost. Med. and Surg. Jour.*

6. *Mysterious Expectoration of Pus.*—A case related to the Medical Institutions of Paris by M. Merat occasioned a very warm discussion among the members, and, as usual, drew forth many curious facts and observations. The original case was as follows :—A young lady expectorated twice a day, for a long time, a large quantity of purulent matter, of a very fetid odor. The expectoration occurred early in the morning, and again at two o'clock p. m. The paroxysm, which generally lasted only a few minutes, was preceded by a sense of suffocation—then came on a slight cough, and a discharge of a tumblerful of pus in a few minutes. The chest was examined with the stethoscope, and it was thought that an excavation existed in the posterior and lower portion of the left lung, but they do not appear to have been very positive as to that point. This young lady had been subject to attacks of this kind for some years, and married, contrary to the advice of M. Merat, at an early age, and became pregnant. She got to the eighth month of uterior-gestation, having frequently required venesection. The expectoration of purulent matter ceased, and this lady died in two or three days' illness. On examination, (which was unavoidably confined to the thorax) no trace of disease could be found in either the lungs or their coverings. There were no adhesions—no trace, in short, of any malady whatever.

M. Gendrin remarked that, as hepatic abscesses sometimes make their way through the diaphragm, and the matter is evacuated by the trachea, this might be a case of the kind. It is astonishing that, in such a society, no one observed that such a thing was impossible in the present case, where there were no adhesions, nor any breach of structure in the diaphragm, through which the hepatic pus might pass. M. G. related the case of a lady who had suffered for several years from attacks of puruleut expectoration, preceded always by engorgement and tumefaction of the right hypochondrium. The matter was ejected by a combination of vomiting and coughing, after which the region of the liver diminished for two or three weeks, when the symptoms were renewed. This female is still living, and has been seen by Recamier, Dubois, and many other eminent physicians of Paris.

M. Sandras conceived it probable that, in M. Merat's case, the puriform matter came from the stomach—the cough and sense of oppression preceding and accompanying the discharge being no positive proof that the matter came from the lungs. M. Merat himself acknowledged that he now came to a similar conclusion, in which, indeed, we entirely agree. M. Merat declared, however, that the pus on repeated examinations, was pure, and without the least admixture, apparently, of mucus. Various opinions, supported by cases, were brought forward respecting hepatic abscesses, but these we need not detail.—*Ibid.*

7. *Experiments upon the Coloring of Different Tissues.*—M. Casimer Broussais, at a recent *concours*, had given to him, as the subject for his thesis, the following question. Can we distinguish by certain appearances in the dead body, the organic alterations which have commenced simultaneously with the disease, and those which are formed during its course, at the moment of, and after, death? In order to be enabled to answer this very important question, M. B. instituted a series of experiments, the conclusions derived from which we shall lay before our readers.

To treat this question clearly, usefully, and without repetition, M. B. thinks it convenient to divide the different lesions of the body into five species, as follows: alterations depending upon, 1st, acute inflammation; 2d, subacute or chronic inflammation; 3d, atony; 4th, physical causes during life; 5th, the dissolution of the organs and the fluids after death. The following are the principal results of his experiments.

1st. The tissues that are perfectly white and completely exempt from inflammation, do not become red on exposure to the air, as Professor Laennec has asserted.

2d. The white and healthy tissues redden on maceration in blood, some with greater and others with less facility; but it is to be remarked that this red colour soon becomes deep brown, and livid, if the maceration be continued beyond a certain time; moreover, the diaphanous pellicle which forms the exterior covering of the serous membranes, and similar to that which forms the internal surface of the

arteries and veins, also becomes coloured ; finally, if the maceration be continued longer than one day, the tissue commences to be friable. But if the tissues reddened by maceration in blood be placed in pure water, at the end of twenty four hours, there will not remain any trace of the colour.

3d. The red and inflamed tissues suffer on maceration in pure water the following changes ; if they have a very slight redness, this disappears after maceration, and reappears on exposure of the tissue to the air ; but if the redness be very bright and deep, it loses only a little of its intensity. Membranes with several spots of chronic inflammation, around which recent inflammation was developed, exhibited phenomena the most interesting and confirmatory of the principles of my father in relation to circumscribed local phlegmasiæ.

4th. In the serous and sanguineous vessels, the diaphanous membrane of which we have spoken, does not become red from inflammation, at least unless the irritating cause acts upon it directly, or unless in the progress of the disease, the redness has passed from the subjacent tissue to it, which is of very rare and difficult occurrence.

5th. The redness caused by imbibition, from maceration, is not rose-coloured, except at first ; it soon becomes of a deep shade and livid ; it is always uniform, and never in points or aborescent ; finally, it readily and completely disappears on maceration in pure water.

6th. The redness from inflammation is sometimes aborescent and in points ; but it is often also uniform, as the injection of ammonia into the carotid of a dog has proved. In this last case it may be deep coloured and black, but not livid, as when coloured by imbibition, and when it does appear similar to this last, it may be easily distinguished, since it does not disappear by maceration in pure water. If, on the contrary, it be light and rose-coloured, it then has a liveliness of colour which belongs only to it ; moreover, although it disappears by washing like slight colouring from imbibition, it does so less readily ; finally, what is a curious fact, if after this light redness has been made to disappear by washing, the tissue be exposed to the air, the colour soon reappears, which never takes place in tissues coloured by imbibition of blood.—*Annales de la Medicine Physiologique, January*, 1830.

8. *Hernia of the Stomach, with Enormous Enlargement of that Organ*—This case was communicated to the Royal Academy of Medicine by M. Yvan. The subject of it was a soldier, who for some years had had a scrotal hernia, which could be easily reduced by taxis, but could not be kept up ; it gradually increased in size, and a month previously to his death repeated vomiting took place, which could not be arrested, although there was no strangulation, and the patient died. On examination, the abdominal ring was found to be enormously distended, measuring eighteen inches in circumference ; the hernial sac contained the inferior third of the stomach, the great-

er omentum, the small intestines, and the large intestine, except the iliac portion of the colon, the cœcum, and the rectum. The stomach, situated parallel to the axis of the body, was of an enormous volume, and seemed divided by a circular depression into two portions ! the one situated in the abdomen, the other in the hernial sac. The length of the great curvature of the stomach was three feet, that of the lesser curvature eighteen inches ; its circumference at its largest part twenty inches, and contained nearly eleven pints, (*five litres,*) of fluid. Longitudinal and circular muscular fibres were observed on the surface of this organ. M. Y. deposited the stomach in the Museum of the Academy.—*Archives Generales, Jan.* 1830, *and Revue Medicale, Feb.* 1830.

9. *Phlegmasia Dolens in a Male.*—A. Copland Hutchinson, describes in the 15th Vol. of the Transactions of the Medico-Chirurgical Society of London, the following case :

Mr. B. received a blow upon his right shin, about twelve months ago, immediately over a branch of the sphena vein, by a small piece of timber accidentally falling upon it. The scar is very slight, though the injury and its results appear to have been severe, and the patient states that the accident was followed by considerable swelling and inflammation all over the limb, and that the abraded surface was very long in healing. Mr. B. says he first felt pain in the direction of the upper third of the saphena before it actually dips to unite with the femoral vein. The whole leg and thigh soon became enlarged and inflamed, the former partly œdematous ; and although the patient states the disease to be slowly on the decline, yet the enlargement of the thigh and leg still continues, and he has pain from the groin to the heel and sole of the foot, principally in the direction of the branches of the saphena, with a slight blush of redness over the forepart of the leg, where the original injury was received ; but while the member is kept in the horizontal position he is nearly free from pain.

I have traced the upper portion of the saphena vain, aud find it to be a complete ligamentous cord for eight or ten inches, but the femoral vein seems to me to have escaped the diseased action. The patient has no pain or uneasiness within the pelvis, and his general health is good. It should be stated, however, that the testis of that side is slightly enlarged, but not indurated.

Dr. G. R. Treviranus also relates in the 5th Vol. of the Heidelberg, Klinische Annalen two cases of this disease occurring in men. Dr. T. considers the disease to be a catarrhal affection of the cellular tissue surrounding the muscles, and of the mucous sheaths.

10. *On the Morbid Phenomena caused by the use of Iodine.* By Dr. Jahn.—"The author of this paper, published in the Journal Complem, for Feb. 1830, informs us that in the part of the country where he resides, there prevails a species of bronchocele which, to all appearance, is a simple hypertrophy of the thyroid gland. He

affirms that this affection is never seen where the water springs from ground that is basaltic, porphyritic, granitic, or gravelly : whereas it is constantly observed where the waters issue from calcareous soils, and contain a quantity of lime in mixture. Iodine is the remedy which is generally employed for bronchocele in this part of the country, and he has had ample opportunities, he says, for remarking its effects on the animal organization. Orfila showed that this powerful medicine, in large doses, occasioned pains in the stomach, malaise, vomiting, diarrhœa, syncope, oppression, ptyalism, tremors, &c. Symptoms of this kind were observed by our author in a man who had swallowed, by mistake, an inordinate dose of the tincture of iodine. In other cases where the medicine was merely continued longer than proper, Dr. J. was struck with the slow but great absorption of fat, preceded and accompanied by an augmentation of all the secretions and excretions. He observed the skin became dark colored, and the perspiration viscid—the breathing embarrassed—the urine abundant—the bowels loose and very bilious—the catamenia (in females) more copious. From these phenomena our author argues that the functions of the venous and absorbent vessels are much increased, in proportion as the nutritive system has been diminished. The blood, he says, becomes thinner than natural, and less abundant in fibrin. If the medicine be continued in these cases, various bad consequences ensue. He mentions two cases where he opened the bodies of patients who labored under the excessive use of iodine, and where the emaciation was extreme, and the viscera in a very flabby state. Still Dr. J. considers the medicine in question as one of the most valuable which has been discovered within the last hundred years. Indeed he terms it 'un remede divin.'

"In scirrhus of the pylorus Dr. J. affirms that iodine has sometimes removed the malady, when early applied, and when aided by leeches. The same has been stated by Wagner, Henneman, Hufeland, and others. We would strongly recommend the medicine in question to be tried in dropsical cases dependent on visceral obstructions."—*Med. Chirurg. Rev. April*, 1830.

11. *Clinical Reports of the effects of Venesection in the cold stage of Intermittent Fever.*—This report was made by Mr. Twining to the Medical and Physical Society of Calcutta, at their meeting in Dec. last, and comprehends ten cases.

Case 1. Was bled to twelve ounces in the cold stage of the 6th paroxysm of tertian intermittent. He experienced immediate relief, the rigors ceased, and he became hot for about half an hour ; he had a slight return of fever daily at noon for six days, not preceded by rigor or cold. This patient had enlarged spleen.

Case 2. Was bled to fourteen ounces in the cold stage of tertian ague in the 4th paroxysm. The rigors soon ceased, he had a slight hot stage for about half an hour, and there was no return of the disease.

Case 3. Was treated with purgatives, quinine, and arsenic, afterwards with mercury to salivation, without benefit; bled in the cold stage of the 11th paroxysm, he felt immediate relief, and had a very short and slight paroxysm without sweating stage. A slight feverish feel remained for eight days after. At the end of fourteen days, he had a return of ague, and on the return of the next paroxysm, after one day's interval, he was bled in the cold stage, and cured.

Case 4. Quotidian ague of seven day's duration, purged and took bark, bled to eighteen ounces in the cold stage of 7th paroxysm with great relief; was exposed to cold next night, and had continued fever afterwards.

Case 5. Tertian ague, bled to lbi. in the cold stage of the 5th paroxysm, with immediate relief; had a short and slight paroxysm, and was cured.

Case 6. A most distressing tertian, with very severe rigors; bled lbi. in the cold stage, and cured.

Case 7. Irregular ague, sometimes tertian, sometimes quotidian, bled to twelve ounces in the cold stage, with much benefit, he was cured, having in place of ague on the two next days of expected access, a slight feverishness.

Case 8. An Asiatic, a native of Madras, bled to six ounces and a half in the cold stage of 2d paroxysm of tertian. The rigours ceased in less than two minutes after the vein was opened, he had no fever, and was cured.

Case 9. Irregular intermittent, used quinine without benefit, emaciated, bled to six ounces, in cold stage, with immediate benefit, and had no return of the disease.

Case 10. Bled to lbi. in the cold stage of 6th paroxysm, the cold ceased, and he had a slight paroxysm. The ague returned on its regular day, and he was bled again to ten ounces, in the cold stage, which was arrested and had no ague or fever since.

Mr. T. enters on some remarks as to the benefit to be expected from guarding against the ulterior results of repeated congestion of internal organs. He also observes, that further experience is requisite to prove whether the treatment be adapted to all cases of ague, at all seasons, and in all situations, or to persons debilitated by disease and long residence in India. Mr. Twining usually has dr. ss. of sp. ammon. aromat. mixed with oz. i. ss. of warm water ready, in case the patient be faint; he says this is rarely used; but that the patients appear better for drinking a cup of hot sago or tea within half an hour after the bleeding.

12. *On the Treatment of certain Injuries of the Eyes.* By Samuel Barton, Surgeon to the Manchester Eye Infirmary.—In cases in which the cornea has been punctured by a sharp body, and the capsule of the lens wounded at the same time; and also in those cases in which, without any penetrating wound of the cornea, the capsule has been ruptured, and the lens forced into the anterior chamber, Mr. Barton recommends the early extraction of the lens, as the means

of affording the patient the best chance of escaping with the least injury of vision and deformity. The usual modes of treating such accidents is generally to subdue inflammation, by venesection, leeching, &c. and waiting for the absorption of the lens. This practice, though admitted by Mr. B. to be sometimes successful, he says in a majority of cases we shall have to contend with a tedious and severe inflammation in the first instance, and eventually an obliterated pupil, with a thickened capsule, adhering firmly to the iris, that cannot be dislodged, and not unfrequently suppuration of the eyeball.

"My attention was directed to the improved treatment of these cases of early extraction of the lens," says Mr. B. "from comparing the advantages with the disadvantages, resulting from the different operations for cataract. From observation I found that more inflammation of the eye, and more constitutional disturbance, ensued from the operations for the depression of the lens, and for its solution, than from extraction, whenever the last operation was well performed.

"It will be an objection with some surgeons to interfere with a single cataract, when the vision of one eye is perfectly good, and in most cases of spontaneous cataract I should agree in this opinion; but in the accidental cataract I should, from experience, recommend the operation of extracting the lens without delay. My mode of performing the operation varies very little from that of the usual manner of extraction; but in making the incision in the cornea, I am governed with respect to the extent of it by the state of consistence of the lens, and the situation of the wound of the cornea.

"As in young subjects, the lens will be generally soft, if the situation of the original wound of the cornea produced by the accident be not unfavorable, a smaller division of the cornea will answer the purpose than when the lens is hard. When the accident takes place in an old person, we have reason to expect to meet with a harder lens, consequently a larger division of the cornea is required, provided that the nature of the case will admit of it.

"In performing the operation, I generally use Beer's extracting knife, and having carried the point into the centre of the pupil, I then raise the handle of the instrument so as to depress the point, and keep it there for a few moments, until I have ascertained whether the lens will escape, by merely making a slight pressure with the knife kept in this position—and in many instances this takes place. If I find that the lens is too hard to pass, I extend the incision before I withdraw the knife, and finish the operation with the scoop.

"Although I am an advocate for extracting the lens early in such cases, there are certain injuries of the cornea in which it will be necessary to wait until some reparation has been made: for instance, when the cornea has been divided by any rough cutting instrument, producing an angular wound with ragged edges, it will be desirable to wait and employ those measures which are most likely to restore union.

"After my early operations, I dressed my patients either with a wet cloth, or a plaster of simple cerate, and a bandage placed lightly

over the eye. By such loose dressings it is scarcely possible to keep the eye in a sufficiently quiet state till perfect union of the cornea shall have taken place ; and it was evident to me, that I had not only very great difficulties to encounter in the after-treatment, but that the operation of extraction failed in some cases in consequence of such dressings. I therefore determined to employ those means that were the most likely to keep the eyelids steady, without producing pressure, and thereby promote the union of the wound of the cornea by the first intention.

"After the pupil has been cleared of the lens, the eye is to be treated as in cases of extraction ; and the plan that has proved the most successful in my practice is to place two slips of court-plaster, four inches in length, and a third of an inch broad, in a perpendicular direction across the eyelids of both eyes.

"This I find to be the best dressing, since without occasioning pressure or uneasiness, it at the same time allows the discharge of any fluid.

"If the process of healing be not interrupted, we shall find in the course of three or four days that all discharge has subsided. The patient will sometimes complain of a pricking sensation in the lids, and it will then be necessary to remove the plasters carefully, and replace them by new slips ; but in changing the plasters, the eye should not be open for an examination until the fifth or sixth day after the operation.

"Since I had recourse to this dressing after the operation of extraction, my cases have been very successful, and attended with less trouble and anxiety, than when I have operated by depression or solution : and I can confidently recommend it when either the cornea has been opened to make an artificial pupil, or in injuries from accidental circumstances ; and the same applications of the slips of court-plaster will be found advantageous, by those who prefer the operations for depression or solution."—*London Medical Gazette, March*, 1830.

13. *Amaurosis.*—A young female was, at the beginning of November last, brought to the Hotel Dieu on account of a complete amaurosis after a blow on the right eye with a whip. No wound could be discovered ; the conjunctiva was slightly ecchymosed, the pupil dilated and insensible, and vision completely destroyed. The humours of the eye were perfectly transparent. She was bled, and had leeches applied to the temples, but without any immediate benefit. On the third day, however, she began to distinguish light, and after a few days more, vision was almost completely restored.

Cases of Amaurosis, M. Dupuytren observed, after contusions of the eye, are by no means unfrequent ; but it is worthy of remark, that this effect should sometimes be met with in cases where the external violence appears hardly sufficient to produce such an effect. Thus, corks of champaigne bottles, striking against the eye, have, in some instances, produced amaurosis, and a similar cause exists, perhaps,

in all cases of so-called spontaneous amaurosis, which takes place suddenly. M. Dupuytren mentioned another case of amaurosis after a blow with a whip, where there was apparently no wound, but considerable ecchymosis, and swelling of the conjunctiva; violent inflammation succeeded, and in spite of the most active antiphlogistic treatment, terminated in the evacuation of the humours, in the midst of which one of the knots of the whip was discovered.

14. *Portion of Bone lodged for forty-eight days in the Trachea of an Infant.*—By Thomas Stabb, M. R. C. S. &c. On the 20th of Sept. last, S. H. S., aged ten months, playing with a bone of a neck of mutton, which the nurse gave her whilst at dinner, put it into her mouth and detached a small portion, about the size of a large marrow-fat pea, which slipped into her windpipe, and produced violent coughing and irritation for about five minutes, when it ceased, leaving a noise in breathing like that produced by a saw. In the course of twenty-four hours, great difficulty of breathing, with constitutional irritation and cough, came on, which was subdued by the usual remedies. The same saw-like noise of breathing, and some cough, continued, but did not appear to give pain after the fourth day, the child's health and spirits after that time appearing as good as usual, except this constant wheezing.

On the 3d of November, upwards of six weeks after the accident, in consequence of a cold she took from going out into the air, violent irritation in the trachea, with cough, returned. A solution of tartarized antimony was given, and on the 7th, after a dose which produced vomiting and general relaxation, and whilst the nurse was briskly rubbing her throat with a volatile embrocation, the head being bent back over her lap, she was seized with a violent fit of coughing, and threw up the piece of bone, embedded in mucus, which had been retained forty-eight days in the trachea. Her breathing almost immediately became natural, and the next day she was as well as ever. The piece of bone was very rough, of a triangular shape, the edges quite sharp.—*Lond. Med. Gaz.*

15. *Strabismus.*—Dr. Rossi, of Turin, thinks that this defect of vision, when it is congenital, is owing to the form of the orbit, the axis of which, instead of being perpendicular to the face, forms with it an acute angle. He accounts, upon this theory, for the fact, that congenital strabismus is often spontaneously cured as the parts increase by growth and acquire new proportions. Dr. R. has invented a kind of glasses which he thinks calculated to remedy this disease, when arising from other causes than the one just alluded to. The glass intended for the affected eye is rendered opaque by covering it with a black pigment. Two orifices are then made through it, one perpendicular to its surfaces, and the other crossing and bisecting the first, but at such an angle that its direction is parallel to the usual axis of vision of the distorted eye. The second perforation is not cylindrical, but diminishing towards the eye, and enlarging externally. The

glasses are, of course, plane. The effect of this arrangement is readily conceived. The direct perforation affords a sufficient means to the eye of seeing objects in front, so that the utility of the organ is not diminished. The other forms a tube which, enlarging and becoming lighter towards its external part, attracts the notice of the eye, the axis of which is thus directed in a line the reverse of that of its usual diseased vision. The effect thus produced is continued until the morbid habit is overcome, and the eye is enabled to resume its appropriate functions.—*Bost. Med. and Surg. Jour.*

16. *Protracted Utero-Gestation.*—Unequivocal proofs exist that the period of gestation has been prolonged for several weeks beyond the period usually assigned to it. From the many cases which have been adduced in evidence of this, we select the two following, which are not so remarkable for the amount of time by which the period was exceeded, as for having been accompanied by circumstances which determined exactly the time of impregnation. The cases are taken from the minutes of a meeting of the Westminster Medical Society, reported in the London Medical Gazette. The first occurred to Professor Desormeaux, of the University of Paris, who states it as follows:—

"A lady, the mother of three children, became insane. Her physician considered that childbearing might have a beneficial influence on the mental disease, and permitted the husband to visit her, but under condition that it should be only once, and at the distance of three months, in order that, if conception took place, there might not be a chance of abortion, from the circumstance of any further intercourse. The physician and attendants made an exact note of the time when the husband was permitted to visit his lady. When, at last, symptoms of pregnancy appeared, the visits were absolutely and totally discontinued. The patient was necessarily watched by the female attendants required for her malady, and was, moreover, a lady of the strictest principles of morality. She was delivered, at the termination of nine solar months and a fortnight, of a *small* child, and Professer Desormeaux delivered her."

The other case, which is related by Dr. Dewees, is as follows:—

"The husband of a lady was obliged to absent himself from her, in in consequence of embarrassment in his affairs. He returned one night clandestinely, and his solitary visit was only known to his wife, her mother, and Dr. Dewees. The consequence of this visit was conception, and the lady was delivered of a healthy child in nine months and thirteen days after that nocturnal visit.—*Ib.*

17. *Poisoning by Opium and Belladonna, used as an Injection.*—Madame * * * *, æt. 22, had been tormented for some months by a dartrous eruption on the vulva. Having tried various means without relief, she applied a strong solution of opium and belladonna, which gave her some ease. On the 19th of November, 1829, she determined to use the narcotics in the form of enemata, and mixed a pint of the

lotion with sufficient water to make three injections, each containing a scruple of opium and half an ounce of the leaves of belladonna. She took the first at eight o'clock in the evening, and the second and third shortly after the first; all three were returned, and some feces were discharged. At half-past eight she went to bed, feeling rather confused. Her husband, a medical man, found her sleeping soundly at half-past nine, and did not disturb her. At midnight, however, finding her still buried in the deepest slumber, he became alarmed, and sent for Dr. Solon. Her face was now extremely pale, the pupils dilated to the utmost, the tongue dry, deglutition difficult, the respiration short and frequent, the pulse small and 130. The limbs were perfectly motionless, and the skin insensible to pinching or irritation of any kind. A purgative injection was immediately exhibited, a free bleeding practised from the arm, ten leeches placed behind each ear, sinapisms applied to the thighs and legs, and ether draughts administered by the mouth.—At 5 o'clock next morning the patient opened her eyes, uttered a few unconnected words, and vomited some bilious matters. In the course of an hour she awoke, as from a painful dream, recollecting nothing of what had occurred. Vision was imperfect; she appeared to see things through a thick veil, and whenever she closed her eyes her ideas became confused and incoherent. We need not pursue the details; suffice it to say that the lady recovered from all her severe symptoms. The parts, however, to which the sinapisms had been applied, sloughed, in consequence of the length of time they had been continued, and many months elapsed before she could walk about. The eruption on the vulva was quite cured by this severe discipline, and the patient subsequently went well through a confinement.—*Medico-Chirurg. Rev.*

18. *Notice of Iron found in the powder of Cinchona bark.*—By Charles Ellis.—A circumstance occurred with a highly respectable house in Baltimore, to which we are indebted for a knowledge of an accidental impurity in the powder of cinchona, which is believed to be of sufficient importance to interest the readers of the Journal.

An ounce of calisaya bark *in powder*, was procured of them, and directed by the physician to be made into a decoction. The liquid when decanted was nearly the color of ink. A second ounce was obtained and infused in an earthen vessel, with precisely the same result. The conclusion was, either that the bark or the water contained iron; and to determine to which of these causes to assign this change of color, and to ascertain whether the bark were really impure, these gentlemen submitted it to the following experiments, viz:—1. A small quantity of the powdered bark was examined by the aid of a microscope, and the whole surface found studded with small metallic specks, some black, some bright, giving it quite a lustre. 2. A quantity of the powder was boiled in a Florence flask with distilled water. The decoction was of a deep black color, taste similar to ink, and entirely devoid of the sensible properties of a decoction of pure cinchona; suffered to stand, the supernatant liquor was of a greyish blue color, and the precipitate of a dark brown, approaching to black. 3. A quantity

of the powder was exposed, in a shallow vessel, to a stream of water, so as to wash away the lighter particles, and the deposit left in the bottom of the vessel consisted of small black grains of a metallic lustre. The inferences drawn from these experiments were, that the powder contained a metallic substance which proved to be iron; and that the precipitate in the decoction was owing to the action of the components of cinchona upon the iron.

These results led to an examination of other parcels of powdered bark, and in upwards of twenty different samples examined by my friend John Farr, and a number by myself, there were none in which the magnet did not detect minute particles of iron; in some much fewer than in others.

In order to ascertain the amount of impurity in a given quantity of bark, I washed carefully half an ounce of the same lot used in Baltimore, and obtained one grain of iron in a metallic state: there was perhaps from a fourth to half a grain lost in the operation. From one ounce of another parcel there was half a grain separated, by the magnet.

It will be readily perceived, from the nature of this admixture, that it was entirely accidental, and fortunately not of a character calculated to do any injury.

Inquiry having been made of the powderer, it was ascertained that his machinery does not materially differ from that in general use; that the revolving stone is shod with iron, and passes over a cast-iron plate; a sufficient cause for the existence of minute particles of iron in the powder, particularly as in this instance the bark was not dusted, a process by which the impalpable powder is separated from the heavier and coarser particles.

Although it is not probable that the quantity of iron found in this cinchona would render it objectionable in many cases, still it is desirable at all times to have our remedies free from all foreign admixture; that the physician may know precisely what he is directing, and the patients may neither be alarmed nor disgusted with unexpected, and to them unaccountable dangers. From the well-known hardness of the French burr stones, we may readily conclude that bark might be ground by them without the fear of adulteration.

It may be observed, in passing, that barks, roots, &c., of nearly every kind, are more eligible for decoction or infusion when coarsely powdered, or bruised, as it is technically called, than when reduced to an impalpable powder.—*Phil. Jour. of Pharm.*

19. *On aromatic or spiced Syrup of Rhubarb.*—By Elias Durand. —Dr. Coxe, in the last edition (1830) of his American Dispensatory, has very judiciously observed that this syrup, prepared agreeably to the Pharmacopœia of the United States possesses a defect which may be easily obviated, without changing the proportions of its ingredients. In fact, evaporating to one half an infusion of rhubarb and aromatic substances, is quite inconsistent with the present improve-

ments in pharmaceutical manipulation; it is too well known that these articles lose, by ebullition, a great portion of their active properties.

This fault, as well as many others which have crept into that national work, has not escaped the attention of our practical pharmaceutists. From the first time I had to compound the aromatic syrup of rhubarb, this defect struck me, and I amended the formula by the following, which undoubtedly affords a preparation very superior to he other, both in nicety and activity. I first prepare an alcoholic tincture with the rhubarb and the aromatic ingredients, and then form my syrup by the addition of a relative quantity of simple syrup.

Aromatic Tincture of Rhubarb.

R. Rhubarb of good quality, parts v.
Cloves and cinnamon, of each, parts iv.
Nutmegs, part i.
Alcohol of 20 deg., parts lxiv.

Bruise the ingredients and macerate them for about a week.

Aromatic Syrup of Rhubarb.

R. Aromatic tincture of rhubarb, part i.
Simple syrup of 35 deg., parts iii.

Mix well. This syrup marks 28 deg. on Baume's pese syrup.—*Ib.*

20. *Formula.*—In foreign pharmacopœiæ and other works of pharmacy, we often find formula for combinations, that are entirely unknown to those of our own country. We insert the following from Verey's Pharmacy, without any respect to arrangement.

Silk Plaster Cloth.

R. Isinglass 1 oz. 1 dr.
a Alcohol 22 deg. Baume 12 oz.
Tincture of Benzoin or of Balsam of Peru 2 oz.
b Tincture of Benzoin 6 oz.
Fine liquid Turpentine 4 oz.

This kind of plaster is applied on white or black silk, stretched on a frame garnished with points. A solution of the isinglass is to be made in boiling water: to this is to be added the alcohol and tincture of benzoin, (*a*) mixed together hot and well filtered. Of this solution a thick coat is to be applied to the upper surface of the silk, by means of a brush or pencil. This coat being dried, five others are to be successively applied; afterwards two coats of the tincture of benzoin (*b*) and the turpentine. This last application increases its flexibility; and though some pharmacians prefer the tinct. bals. Peru, yet the latter scales off more readily, while it is more agreeable.

Dover's Powders.—The following formula for this ancient and celebrated powder is from the French Codex:

R. Sulphate of Potassa,
Nitrate of Potassa, each 4 grammes, or 61 76-100 troy grains.
Ipecacuanha in powder,
Opium purified,
Liquorice in powder, each 1 gramme, or 15 44-100 troy grains.

It is recommended, in the pharmacopœia of Swediaur, to melt the nitrate and sulphate of potash together in a crucible, and then unite them to the other powders. The dose is directed to be 12 grains.

Cough Lozenges of Tronchin.

R. Powdered Gum Arabic 8 oz.
Brown Hydrosulphuretted Oxide of Antimony,
Anise, each 4 scruples.
Extract of Liquorice 2 oz.
Gummy extract of Opium 12 grs.
White Sugar 2 lbs.

Mix and make into lozenges weighing 6 grains each. Of these, one may be taken occasionally in diseases of the throat and chest.

Lozenges of Oxalic Acid, for Thirst.

R. Pure powdered Oxalic Acid 2 dr.
Sugar 1 lb.
Volatile Oil of Lemons 20 or 30 drops.
Mucilage of Gum Tragacanth q. s.

These lozenges may be colored red by means of a little carmine, blue by Prussia blue, or yellow by tumeric, if desirable. They are very pleasant in fever. And if it be desirable merely to make an *oleo saccharum*, the mucilage need not be added, and the compounds can be preserved in the state of powder, and used to prepare *lemonade*.—*Phil. Jour. of Pharmacy.*

20. *Effect of Light on Plants.*—By M. Leuchs. It is well known that solar light, by enabling plants to decompose and assimilate carbonic acid, gives them the power of forming volatile and aromatic principles, and of acquiring a green color. Its presence is so necessary to flowering and fructification, that ripe seeds have never been obtained in darkness; on the contrary, if an etiolated plant be exposed for three, four, or five hours to the sun, it immediately becomes of an equally intense green color with those which have continually grown in light. Plants raised in the open air, when put into darkness, become pale, and fade in two or three days; those which, after being raised in darkness, have been exposed for a time to sunlight, cannot again support the privation of light, but die; and water charged with camphor, or essential oil, which has great power of invigorating plants, cannot prevent their destruction. The perfect absence of light is therefore very injurious to plants, and M. Leuchs concludes, that, without the light of the moon and stars, nights would destroy vegetables.

The light of a lamp can, although imperfectly, replace that of the sun; the plant becomes green, and tends to the light. When seeds

were germinated in three vessels, the first uncovered, the second covered with single, and the third with double paper, those of the first vessel exhibited less external development, but when dried, they gave more solid matter; those in the second were more developed, but were more aqueous and loose; the difference was still greater in the third vessel.

The texture of various plants appears to be more or less aqueous (if the word may be used) when deprived of light, according to the nature of the plants. When plants were placed in a damp cellar or cave, enlightened by a flame, those nearest the flame contained most solid matter; the results were so regular, as to present something like a law, relative to the action of various quantities of light on vegetables.

Light reflected by mirrors appeared to have a very beneficial influence upon plants, and M. Leuchs thinks that many hill sides are rendered fertile by the similar reverberation of light from the neighboring rocks.—*Archiv von Castner.*

21. *Remarkable Case of Re-union of a divided Part.*—A case of this description, which occurred at a Quebec hospital, is worth recording.—A man, in chopping wood, cut off the first phalanx of the middle finger. For two hours after the accident, he remained occupied at home. Although the divided part of his finger then appeared to be deprived of vitality, it was determined to follow the plan of Mr. Balfour, and to attempt to re-unite the parts. The tip of the finger was fixed to the stump by adhesive plaster, and in three days union had taken place in two or three parts, and the extremity of the finger which had been divided had as much sensation as any other part of the body. The dressing was continued, and in three more days the re-union was complete.—*Bost. Med. and Surg. Jour.*

22. *Chorea.*—M. Dupuytren is in the habit of treating chorea with the cold bath and cold affusions. Whilst in the bath, violent spasms and very disagreeable sensations are excited; these soon pass away. Active exercise is recommended for half an hour, after each bath.—The daily repetition of this process, for a few weeks, usually cures the most obstinate cases.—*Ib.*

23. *On Mr. Wardrop's method of treating Nævus.*—Sir,—I transmit you two cases, one of nævus, the other of aneurism by anastomosis, successfully treated by the Kali Purum, as recommended by Mr. Wardrop in the former disease.

These observations will not only confirm the observations of Mr. Wardrop, but they will lead me to make some remarks upon the difference of the mode of action of this caustic, and that of nitrate of silver, which has erroneously received the same denomination. The first case, or that of nævus, will only require to be briefly and simply detailed.

The case of aneurism by anastomosis, was the subject of various chirurgical transactions by a surgeon physician, who, confounding

the effects of the nitrate of silver with those of caustic, had long endeavored to cure this affection, by that remedy in vain.

The nævus was situated under the left side of the inferior maxilla, rather deeply seated beneath the skin, of the size of a walnut, but daily increasing in its dimensions; the patient was a child two years old. Having protected all but the central part by means of adhesive plaster, I applied the caustic potass to this part, in the manner directed by Mr. Wardrop. Ulceration was produced, and spread to the destruction of the nævus: a common poultice being applied, the process of destruction, which extended but to the boundaries of the nævus, was followed by that of cicatrization.

The case of aneurism by anastemosis occurred in a Mrs. Taylor, aged 34, occupying the middle part of the left ala of the nose, and appearing to penetrate through the textures of which it is formed. It had been subjected to scarifications both within the nostrils and externally, and to applications of the nitrate of silver during a period of eighteen months, without the slightest advantage.

I applied a small portion of caustic potass over the part externally, confining its operations by means of an adhesive plaster pierced in its centre for the purpose, after the manner of making an issue. This process was required to be repeated five times, at intervals of about five days. The aneurism being now destroyed, the part healed spontaneously, leaving a cicatrix which is scarcely visible, and no orifice through the ali nasi, as it was feared any cure must do.

I think it important once more distinctly to state, that the nitrate of silver is not a caustic in any sense of the word. It subdues inflammation, and induces resolution and the healing process. It preserves and does not destroy the part to which it is applied. The pure potass, on the contrary, is a caustic; it destroys; it induces the ulcerative process. Touch a part with the nitrate of silver—the eschar remains for a time, and then falls off, leaving the subjacent part healed. Do the same thing with the kali purum—it induces a slough, which, being separated, leaves an ulcerated surface. If an ulcerated surface, secreting pus, be touched by the nitrate of silver, the discharge is immediately converted into lymph. It is the property of the caustic potass, on the contrary, to induce not only ulceration, but suppuration.

In short, the peculiar properties of the nitrate of silver have long been kept unknown to us by its designation of the lunar caustic, affording the most striking instance of the influence of a term or of classification upon the human mind. The nitrate of silver and the caustic potass (as, indeed, all *caustics*) are as the poles to each other—the first preserves, the second destroys; the first induces cicatrization, the second, ulceration. JOHN HIGGINBOTTOM.—*Lond. Med. Gaz.*

24. *Evacuation of the Humours of the Eye by a Wound, with Restoration of Sight.*—This very interesting and remarkable case is related by Baron Larrey in his Clinique Chirurgicale, a work just published, and from which we shall extract some other instructive cases. A sergeant of the fifth regiment of the Royal Guard, fell on

the morning of the 20th of March. 1821, against a pile of muskets, and struck his left eye against one of the locks ; the globe immediately burst, and was almost entirely emptied ; the man mechanically carried his hand toward the eye, and found in it some glairy matter, in the middle of which was a whitish globular body, which acording to all appearances, was the lens. He washed his eye with cold water, covered it with a bandage, and was carried to the hospital de la Garde Royale, a few hours after the accident. On examination M. L. found the eyelids ecchymosed, the conjunctiva red and swelled. and the globe collapsed ; there was a wound at the inferior half of the cornea, through which the iris was prolapsed, and from which there was a constant discharge of an albuminous fluid mixed with blood ; the bottom of the eye was of a dark red colour. The patient complained of violent pain in the orbit and the whole left side of the head. The eye was washed with cold water ; the iris, the internal margin of which was torn from the ciliary ligament, was reduced with a golden stilat, the edges of the wound in the cornea were brought into contact, the eye kept closed, scarification made in the eyelids, and blood taken from the temporal artery. The patient was placed in a dark room, took cooling draughts, and had ice applied over the head, and sinapisms to the feet. Under this treatment the pain in the orbit and head-ache subsided, and he had about an hour's rest. Towards evening he became feverish and was again freely bled. The ice and cooling potions were continued. On the next morning, symptoms of cerebral inflammation having manifested themselves, he was cupped between the shoulders ; the other remedies were continued, and the bandage not removed before the ninth day, when M. L. found, to his great surprise, the globe almost of its natural size. The aqueous humour still escaped through the wound, on the edges of which there was some irregular membranous fragments, probably of the membrane of the aqueous humour, which were removed by the scissors. The patient said he could distinguish the light. The eye was again closed and covered with a compress, dipped in camphorated wine, and an aromatic poultice applied to the left temple and supra-orbital region. The other remedies, as well as the application of ice were continued, and the patient repeatedly cupped. On the sixteenth day, the bandage over the eye was again removed ; the pupil was irregular, the iris motionless at the inner and lower portion ; but its external half contracted perfectly well ; its interior margin presented a semilunar fissure of a line and a half in breadth. The patient said he could distinguish objects very well, though they appeared to him as if divided longitudinally. The eye was now again covered with a simple bandage, and daily washed with a decoction of poppy-heads, containing a small quantity of camphorated wine. Under this treatment the inflammatory symptoms gradually disappeared. On the twentieth day after the accident, the wound in the cornea began to cicatrize, and after a few days more, was perfectly healed. From this period the globe recovered its former size and form ; the pupil was drawn towards the temple, but perfectly sensible at its

outer portion. Sight was perfectly restored, except that the patient was obliged to use concave glasses, and that when he looked at objects before him, they appeared to him to be divided. On the 15th of May he left the hospital to resume his duties as a sergeant, and on the 29th of the same month he was presented to the Societe Philomatique.

25. *Case of Tetanus, caused by a Foreign Body imbedded in the Ulnar Nerve.*—A young man was struck with a whip over the arm, so as to produce a slight wound at the anterior surface of the forearm, just over the ulnar nerve. This soon healed, and left a small elevated cicatrix. A short time afterwards, however, the individual was brought to the Hotel Dieu affected with tetanus, the cause of which could uot be ascertained. The case ended fatally, although the most extensive antiphlogistic treatment was employed. The post mortem examination gave no clue respecting the origin and termination of the disease; the brain, with its membranes, as well as the spinal chord, were perfectly healthy, &c.; it occurred, however, to M. Dupuytren, to examine the cicatrix on the forearm, in which he was surprised to find a knot of the whip imbedded in the substance of the ulnar nerve, the irritation of which had undoubtedly been the cause of the tetanic affection.

26. *M. Dupuytren's Treatment of Hernia Humoralis.*—Many patients affected with inflammatory swelling of the testicles after gonorrhœa, have lately been admitted at the Hotel Dieu. The history of the cases individually are of little interest, on which account we abstain from giving them; and only advert to the subject to notice the remarks made by M. Dupuytren as to his general treatment of such affections. He directs from twenty to forty leeches to be applied on the scrotum, as nearly as possible on the part corresponding to the testicle; and this application is repeated two or three times, if necessary. Fomentations, poultices, low diet, and dilulent drinks, with confinement to bed and the maintenance of the testicles in the support of a suspensory, are rigorously adopted. M. Dupuytren never, on any occasion, practises the method recommended by some, of introducing a bougie into the urethra, by way of irritant, and suffering it to remain there;—a sound or bougie so used, seldom restores the discharge, while it often augments the irritation of the testicles, sometimes even causing formidable mischief. Thus he has seen cases in which individuals have died of other diseases during the time they were under treatment for swelled testicles, by means of bougies left in the urethra: in them the vasa deferentia and vesiculæ seminales were filled with pus.

The result of M. Dupuytren's practice has been very successful, seldom requiring more than a few days for its completion; whereas the former method often lasted six weeks or two months.—*Lon. Med. Gazette, March, 1830, from the Jour. Hebdom.*

27. *Excision of the Upper Jaw.* By John Lizars, Esq.—The third operation was performed on the 10th of January last, on a healthy woman, aged fifty five. Eight months before this period she began to feel pain in her right temple and eye, the latter of which soon protruded in a slight degree, and immediately afterwards the cheek ; a fetid discharge began to flow from the nostril of the affected side, and a tumefaction of the hard palate to appear. When she arrived in Edinburgh, there was, on the right side, a distinct bulging downwards of the hard palate, an evident protrusion of the superior maxillary bone forwards to the face, and upwards to the eye, which organ had a weeping, inflamed, and swollen appearance ; there was also a small, round, firm tumour in the nostril, from which issued a sanious discharge.

Having prescribed a cathartic the day before, he operated as follows. Having placed his patient on a table, he first secured on the right side the trunk common to the temple and intermaxillary arteries, immediately below the posterior belly of the digastric muscle, slit up the right nostril close to the mesial septum, likewise the upper lip at the labial fossa, and the cheek from the angle of the mouth to the masseter muscle. He next divested the bone of its soft coverings, at the points where the saw was to be applied, by dividing the mucous membrane which invests the floor of the naris, also the gum from the naris to the palate, the palate backwards to the velum, and across to the dens sapientiæ, carefully preserving the adhesion of the velum to the palatine plate of the os palati ; after which he dissected up the flap of the cheek from the superior maxillary bone towards its nasal process, and to where it forms the floor of the orbit, also outwards towards the cheek bone, and around to its bulbous process.

The superior maxillary bone being thus divested of its soft coverings, or cleared of these where it was intended to be removed, he applied the saw at the following different places, namely, the front of the bone between the naris and mouth ; the palatine plate backwards from this, parallel with the longitudinal palatine suture : to near where the transverse palatine suture exists : across the same palatine plate towards the bulbous process ; upwards between the bulbous process and the pterygoid processes of the sphenoid bone, across where it joins the cheek-bone ; and, lastly, at its nasal process, parallel with the inferior margins of the lachrymal and nasal bones. He then, with strong scissors, cut the connexions of the orbitary plate with the os planum of the ethmoid bone, and orbitary process of the palate bone, deep into the orbit, to the spheno maxillary fissure ; and was, lastly, able, by notching with the bone forceps at every point where the saw had been applied, to remove the entire bone, which had its cavity filled with a firm sarcomatous tumour. There were, besides this, two or three soft gelatinous polypi hanging from the mucous membrane of the ethmoid bone, which required to be removed. A little lint was then inserted in the vacuity to afford support to the flaps of the cheek, which were approximated by needles and ligatures, three needles being inserted in the integuments of the nose,

two in the upper lip, and four in the cheek. The patient was now carried to bed, and had an opiate administered. The wounds of the integuments healed by the adhesive inflammation. The patient was able to walk about the room by the eighth day, and the 5th of March she left Edinburgh for her home.

This operation appears hazardous, but Mr. Lizars says that it is not so in reality—that when once the hæmorrhage is commanded by securing the internal maxillary artery, it is comparatively easily effected, and not nearly so formidable as the former operation of trephining and cauterizing the antrum. The disfiguration of the countenance, he says, also is rendered very trifling by the preservation of the cheek bone.

28. *Tapping in Hydrocephalus.*—Dr. Conquest is said to have performed the operation of tapping for the cure of hydrocephalus, twice with success; and it is stated in the London Medical Gazette, for April last, that he exhibited one of the patients to his class, and a number of gentlemen, last spring. "This child, a girl of about two years of age, had several signs of hydrocephalus from a date soon after its birth, and for many months past the head had gradually increased, until it acquired an enormous size. The forehead was singularly broad, and the anterior fontanelle unnaturally large. The pupils were permanently dilated; the child slept almost incessantly, and frequently had two or three frightful convulsions during the day and night. Dr. Conquest operated sometime since, before a large number of the pupils of the hospital, by pushing a very beautifully constructed trocar into the right lateral ventricle. He introduced it obliquely, close to the edge of the right frontal bone, about midway between the crista galli process of the ethmoid bone and the anterior fontanelle, so as to avoid the longitudinal sinus on the one hand, and the corpus striatum on the other. The instrument entered about two inches below the scalp. An ounce and a half of bloody serum, mixed with portions of cerebrum, escaped. The pulse became feeble, and temporary collapse followed. The fluid was allowed to escape stillicidium, and within eight and forty hours about two pints and a half flowed out of the opening. Almost immediately after the operation, the pupils became sensible to the stimulus of light; the drowsiness was succeeded by disinclination to sleep, and the pulse, which had always before been remarkably slow, became about eighty-five. Two days after the operation, the brain evidenced signs of inflammation, with high constitutional disturbance; and great alarm was excited by a rather formidable attack of convulsions. Leeches to the temples, and the constant application of cold to the head, subdued the local inflammation, and within four and twenty hours all became tranquil. The head was well strapped, and from the cessation of cerebral excitement no unfavorable circumstance occurred.

"When this interesting child was exhibited to the class on Saturday evening, every one was struck with the improvment of its appearance, and by the intelligence and cheerfulness of its countenance.

Dr. C. stated that he considered it perfectly well, and as exhibiting a most gratifying and triumphant proof that this seemingly formidable proceeding might be safely and successfully adopted under similar circumstances.

"The other case, to which the doctor has often adverted during the winter, he operated on last autumn, assisted by Dr. Hodgkin, the talented pathologist of Guy's Hospital. Nine ounces of serum were withdrawn from the posterior fontanelle. The head became lessened six inches in its circumference, and no increase of its size has yet recurred."

29. *Case of Recovery from a Wound in the Stomach, inflicted by a Pistol Ball.* By P. Breton Esq.—A trooper, in a fit of despondency, formed the resolution, on the 30th of April, 1819, to commit suicide. In the evening, about dusk, he took his holster pistol, and three ball cartridges, and proceeded from the fort of Sembhelpur to the bed of the Mahanadi River, where he intended to effect his purpose. His woman, seeing him in a disturbed state of mind, followed him at a short distance. Observing him load his pistol, aud directing it towards himself, she ran and seized his arm, and endeavored to force the pistol from his hand. In the struggle, the pistol was fired, and the ball passed through the body of the woman, and killed her on the spot. The trooper again loaded, and shot himself in the pit of the stomach, the ball lodging in the left side of the lumbar vertebræ.

Having failed in his attempt to destroy himself, and the third ball cartridge with which he had provided himself being lost when he fell on the ground by the shock from the ball, he returned, without any assistance, to the fort, and communicated every thing that had happened.

"On examiniug his wound, I found that the ball had entered the epigastric region, and was perceptible to the feel in the left side of the loins. I immediately extracted it, and closed the incision with adhesive plaster. Conceiving that the stomach was penetrated by the ball, I considered the case a hopeless one, and reported the wound to be mortal. The following morning the man had recovered his senses so as to give a distinct and rational account of all the circumstances which led to the commission of the rash act; and the wound manifested such appearances, as left no doubt in my mind of the stomach being perforated.

"My attention was therefore directed to uniting the anterior wound with all possible speed, and to prevent the introduction into the stomach of any more food than was absolutely necessary to support life. To my astonishment, the wound quickly united, and the serous discharge from the stomach gradually ceased. When union had taken place in the anterior wound, I was informed by the native doctor, that when food was taken into the stomach, particles now and then escaped from the wound into the loins, where the ball lodged. To convince myself of the truth of this assertion, I gave the trooper

a draught of water to drink ; and almost immediately afterwards I distinctly saw a small quantity of it trickle through the wound. I repeated this two or three times, and was satisfied that there was a communication between the stomach and the wound in the loins. Superficial dressings were continued, and rigid abstinence enjoined. In the course of about a month and a half, the wounds healed, and the man recovered."

It is remarkable, that in this case of perforation of the stomach by a pistol ball, very little pain and uneasiness were expressed by the patient, and symptoms of irritation were not at any period manifested. Neither was thirst complained of, nor were the natural functions of the body in any considerable degree disturbed.—*Transactions of the Med. and Phys. Society of Calcutta, Vol. I.*

30. *On the Influence of Electricity on Animal Putrefaction.* By Charles Matteucci.—Persuaded from some experiments of M. Bellingeri of Turin, and others not yet published which I have myself made, that animal substances, when they are put in contact with metals, establish themselves in an electric state, I determined to place some pieces of muscle upon plates of zinc, others on plates of copper, and I left others by themselves. In the course of a day I perceived that putrefaction had already begun in the pieces of muscles which were left to themselves, while no alteration showed itself in those which were in contact with metals. I afterwards perceived that the products of the change which had afterwards taken place on these last were different, but were always related to the electric state which they had assumed, that is, with their affinity. I observed, for example, ammonical products, and those of carbonated hydrogen in the muscles which were in contact with the zinc ; and much acid and acetate of copper in those which were in contact with the copper. These results prove sufficiently that muscle, put in contact with zinc, having become electro-negative, and being no longer able to unite with the oxygen, have been slow in decomposing ; but have at last yielded to the affinity, though weak, of the hydrogen and the azote, while on the contrary, the muscular fibre, placed on copper, were combined entirely into acid products. We may then, in this manner, retard putrefaction, that is, by eluding the action of one of the two elements of the atmosphere. I have thus obtained similar and perhaps more marked results by determining an electric state in the animal fibre, not by electro-motive action, but by placing them as conductors at the poles of a pile.

By setting out with these considerations, it appears to us that we may, with more certainty, explain the antiseptic property of some bodies, an explanation, however, which is not the same for all. There are some, for example, which act by taking away water, others by forming true imputrescible combinations ; others, in my opinion, by determining a particular electric state. Of this kind is the property of vegetable charcoal. It is a settled fact in practical surgery, (as has been shown by Dr. Palman in a pamphlet lately published in

Paris) that if we put vegetable charcoal on purulent sores and on putrid sores, it is not long in depriving them of their bad smell, and preventing the ulterior development of fetid matter.

Effects like these cannot depend solely on the action of prorosity, for they would cease by continued contact ; and we may explain them better by regarding the action of charcoal as electrical, in consequence of which, by establishing in purulent sores, and in putrid flesh, electrical states, they lose those affinities in virtue of which they separate the purulent matters, or destroy them by a rapid putrefaction.—*Annales de Chinie.*

31. *Purity of Balsam Copaiba.*—The best test of this, according to M. Gerber, is the caustic ammonia, which furnishes at once a clear solution, whilst the solution with potash does not become clear until after some time. The addition of a very small quantity of fatty oil renders the ammonical solution immediately cloudy and thicker.

Ibid.

36. *Transfusion.*—Dr. Dieffenbach, of Berlin, has performed numerous experiments upon animals, from which he obtanss the following conclusions :

1. That an animal, bled to apparent death, may be brought back to life by the blood of another animal of the same species, and afterwards continue to do well.

2. Blood derived from an animal of different species may produce signs of life, but these are not permanent.

3. If transfusions be performed with the blood of an animal very dissimilar to the one operated on, however small the quantity, the latter will be destroyed. This result occurred when human blood, or that of a calf, was injected into a cat ; more slowly when that of a dog or a rabbit was transferred to the veins of the same animal.

4. Mammiferous animals are less sensible to the noxious influence of the blood of birds or coldblooded animals, if they have previously been bled.

5. Birds are always killed by the blood of the mammifera or fishes, and exhibit, in these cases, the symptoms produced by narcotic poisons.

6. Whenever, after the injection of the noxious blood, an animal has copious evacuations, by urine, stool, or vomiting, the ill effects of the operation are lessened by this circumstance.

7. Blood, when exposed to the air, does not lose its reviving properties, until decomposition commences. Once decomposed, it produces the same effects as any other putrefying animal substance.

8. Age, sex, and other circumstances or states of the constitution, exercise little or no influence on the effect of transfusion.

9. Diseases are not always communicated by transfusion.

10. Venous blood answers best for this operation.

11. Transfusion is always attended with danger, although the animals are of the same species; its employment as a remedial measure, therefore, is suited only to desperate cases, where all other means are inadequate to preserve life; and none except human blood ought ever to be used in these cases.—*Bost. Med. and Surg. Jour.*

32. *New Pessary.*—A lady practising the profession of midwife near Paris, has lately invented a pessary which, on some accounts, has been found Preferable to any heretofore employed. It consists of a steel spring of proper shape, enclosed in a cushion of horsehair, which again is entirely enveloped in a case of gum elastic. The instrument is said to have sufficient firmness to support the uterus, to yield readily to the pressure exerted during the fecal evacuations, and to, oppose no obstacle to the passage of the urine. It has received the approbation of the Royal Academy.—*Boston Medical and Surgical Journal.*

33. *On the Use of the Acetate of Lead in Ulcerated Phthisis.*—Dr. Lenz considers the acetate of lead as a true panacea in chronic pneumonia which has gone on to ulceration. Dr. Schneider, of Ettenheim, is also said to have employed the remedy in this disease, with success. The medicine is given in powder, combined with opium; the dose gradually increased. A patient who was cured by Dr. Lenz, took two drachms in thirty-two days; and Dr. Schneider has often given fourteen grains in one day, without producing the least ill effects.—*Heidelb. Klinis. Annalen.*

34. *Fracture of the Spine—Recovery.*—A case of recovery after fracture of the spine, with paralysis, recently occurred at St. Thoma's Hospital, and is reported in the London Journals. The subject of it was a young man 15 years of age. The fracture was produced by the falling on him of a cask, and was discovered in the body of the 3d dorsal vertebra. Although the mind was perfectly clear, and the use of the upper extremities unimpaired, respiration was performed by the diaphragm alone, and there was total loss of voluntary motion in the lower extremities: prinapism was constant, and the patient had no power over the bladder.

He was placed upon a fracture-bed, with a trap door so fixed that the seat of the injury might be examined without moving him; leeches were applied freely, the catheter, enemata, &c., used as occasionally indicated. The amendment was gradual, and it was not until he had remained on the bed twelve weeks, that he was allowed to rise. At the expiration of five months from the accident, his health was restored, and he walked perfectly well, save only a degree of stiffness in the hip, knee, and ankle joint, of the right leg.

35. *Physiology. Seat of Taste.*—From an account of experiments made to determine this point by Messrs. Guyot and Admyrault, of

Paris, we select the following, which will be found to present some very curious results:—

1. If the extremity of the tongue be enclosed in a sac of soft parchment, in such a manner as completely to cover it, it will be possible to introduce between the lips, and even to crush between them, a small quantity of a soft sapid substance, like preserves, without producing any other sensation than that of consistence and temperature. This experiment has been varied by employing weak hydrochloric acid, and sweetened water, without its being possible, not only to distinguish them, but even to recognise any taste in either.

2. If the cheek be withdrawn from the alveolar arch, and then be covered internally with sweet or acid jelly, no sensation of taste is experienced, unless the saliva from the part is allowed to come in contact with the tongue. This experiment may be varied by simply closing the teeth, and placing between them and the cheeks a soluble body, like sugar or aloes. The taste is not perceived, even when the substance thus enclosed has been dissolved; but it becomes at once obvious, when the fluid of the part is allowed to flow within the teeth.

3. The tongue being covered as in the first case, but to a greater extent, by adding a prolongation reaching to the epiglottis, if some substance of a decided taste is swallowed, and, in the movement of deglutition, is carefully brought in contact with all the points of the palatine arch and the velum, the taste will be perceived on the posterior part only.

4. If the palatine arch be covered with a slip of parchment, a sapid body placed on the tongue and swallowed, produces its usual taste.

5. A fragment of aloes fixed on the end of a stilet, and placed in successive contrast with all the points of the arch and the velum, produces the following effects:—In the whole extent of the arch, at its edges as well as the centre, there is no sensation but that of touch.—The same is the case generally with the velum, and with the greatest part of the uvula. It is observed, however, that, in the anterior superior part of this organ, about a line below the point of its insertion into the arch of the palate, there exists a small surface, not extending to the base, from which it is three or four lines distant, but prolonged and losing itself laterally; this part is endowed with the sense of taste in a marked degree. By carrying the instrument farther into the mouth, it appears that the posterior part of the velum and the mucous membrane of the pharynx, have no part in producing the sense of taste—If, then, we except the part just indicated at the superior part of the velum, the tongue is to be regarded as the sole seat of taste.

8. A stilet, armed like the one last mentioned, and applied in succession to different points of the tongue, will prove that the whole face of this organ does not possess the property of perceiving tastes. This property is found only as we approach the circumference, in a region of one or two lines in breadth along the sides, and three or four at the point, somewhat broader on the superior than the inferior face. It is

also found to exist in the space situated beyond a curved line passing through the blind hole, and the concavity of which is supposed to be turned forward.

The sense of taste is possessed by the border of the tongue more fully than by any other portion, and appears to exist uniformly in this part, as far as a few lines from the anterior extremity. From this point the sensation becomes more acute, and reaches its maximum at the point, where it exists in the greatest intensity. With the exception already noticed, the inferior surface of the tongue is incapable of taste.—*Bost. Med. and Surg. Jour.*

36. *Case Illustrating the Intoxicating Effect of Sulphate of Quinine.* By Chandler Robbins, M. D.—The following history displays not only the influence of quinine over the cerebral functions but shows us in what quantity some constitutions (and perhaps all) will bear a remedy which is usually prescribed in doses of two or three grains.

On the 5th of January, I was requested to visit Mr. O., a young gentleman about 30 years of age, with a constitution naturally good, but health somewhat impaired by frequent attacks of intermittent fever. He first contracted this disease on the canal route to Saratoga; and for many months had been in the habit of arresting the paroxysm at its onset, by a liberal dose of sulphate of quinine, which almost uniformly effected his purpose, if taken immediately on the approach of such sensations as he had learnt to consider premonitions of an attack. The day previous to my visit, such sensations having been rather more urgent than usual, he took *half a drachm* of the sulphate at a dose. This quantity produced no stricture across the chest, and no pain in the stomach; but in about three quarters of an hour he began to feel as if intoxicated. This feeling, which was precisely similar, he states, to that produced by an over dose of alcohol, increased so rapidly, that in about fifteen minutes his ideas became confused, and he was unable to walk without staggering. He succeeded, however, in getting his bed and some sleep, and the next morning complained only of loss of appetite, occasional dull pain and dizziness of the head, and a general languor and debility, and incapacity for business;—his symptoms, in fact, were such as are usually the sequelæ of inebriation, but more permanent, yielding but tardily to the remedies prescribed. This gentleman had no return of intermittent for a long time after, nor do I learn that it has ever troubled him since. He is now an excellent editor of an excellent newspaper in the state of New-York, and will probably recognise his case in the above details. *Franklin Place, Boston.* —*Bost. Med. and Surg. Jour.*

37. *Distinctive marks of Pregnancy.*—Since pregnancy may exist with but questionable evidence, and, on the other hand, all its imputed symptoms may be present under circumstances foreign to gestation, it becomes an interesting and practically important inquiry, are there any means of arriving at the truth, in every such case, at a period antecedent to parturition.

No one, it appears to us, has answered this question so well as Dr. Gooch, who, in his late account of some of the principal diseases peculiar to women, has given to it about fifty pages. His opinion appears to be, that, when we are in doubt, nothing can solve it so readily as a careful external or internal examination,—each separately, and both combined.—The directions given by Dr. Gooch for performing these examinations, we shall offer in his own words.

"*External.*—In examining externally through the walls of the abdomen, the bladder should be empty, the patient in bed, *in* her night dress, *on* her back, *in* a posture between sitting and lying, with the knees slightly drawn up. These are the most favorable circumstances for the external examination; but we are often obliged to examine without these advantages.

The first thing to notice is the situation, consistence, and figure of the tumor which is distending the abdomen. In pregnancy, the uterus does not rise out of the pelvis before the third month,—by the sixth month it is up to the umbilicus,—by the seventh it is a little above the umbilicus,—by the eighth month it is half way between the umbilicus and scrobiculus cordis,—and in the ninth month it has reached the scrobiculus cordis, its highest elevation; thus, if we are examining a patient about the sixth month of pregnancy, we shall feel a circumscribed tumor occupying the front of the abdomen, from the brim of the pelvis to the umbilicus, of an oval form and firm consistency, much firmer than the abdomen above and on its sides, where it is occupied by the intestines. All this can be made out clearly, if the walls of the abdomen are thin and relaxed; if they are fat, this is difficult, and often impossible; but even then we can notice whether the enlargement is firm or soft: the former will be the case, if the patient is pregnant.

The next thing to notice is the umbilicus. In the unimpregnated state, it is sunk below the surface, forming a shallow pit; but in pregnancy, when the uterus has arisen to or above the umbilicus, this part projects above the surface of the abdomen: this, however, depends on the period of pregnancy at which we are examining; it will scarcely be found before the sixth month, and the further the pregnancy is advanced, the more distinct will it be. The firmness of the abdomen, and the projection of the umbilicus depend on one and the same cause; that is, the firmness of the tumor which is distending the abdomen; but any other tumor equally firm may occasion both of these symptoms: their presence alone proves little, but if the state we are investigating is advanced as far as the seventh or eighth month, their absence proves a great deal; for, if the umbilicus is depressed, and the abdomen, though enlarged, is soft and yielding, these alone prove that the patient is pregnant. Let not the practitioner, however, give an opinion till he has collected all the proofs."

Before proceeding to internal examination, one other point is of great moment. The hand should be placed on the abdomen, over the tumor, and there allowed to remain several minutes. If no motion is felt, it is not indeed conclusive evidence that there is no fœtus in ute-

ro,—the fœtus may be quiet just then, or it may be dead,—but if a motion *is* distinctly felt by the hand in this situation, this is perhaps the best of all proofs of the pregnancy of the patient,—much more conclusive, certainly, than any obscure sensation of the patient herself, who may mistake other movements, or even nervous impressions, for fœtal motion. Dr. G. then goes on to speak of the examination which we have called

Internal.—"Having examined the uterus through the walls of the abdomen, we proceed next to examine it through the vagina; for this the patient should be turned on her side;—and here again there are three things to observe,—the state of its neck, the state of its body, and the movement, or rather the mobility of the fœtus. 1st, in the unimpregnated state, the neck of the uterus projects into the vagina about two-thirds of an inch, like a thick, firm, fleshy nipple. At the termination of pregnancy, a few days before labour, this neck is completely obliterated, the portion of uterus which lies over the top of the vagina, no longer projecting into its cavity, but forming a flat roof. This obliteration begins about the fifth month, the neck becoming gradually softer, broader, and shorter; by the seventh month it is much altered, and not at all like the neck in the unimpregnated state, being very soft, broad, and short. It is now calculated to have lost three-fourths of its length; but it is not quite obliterated till the last week of pregnancy; so that if a false alarm about labour, two or three weeks before delivery, gives the practitioner an opportunity of examining the uterus, he will find a soft, short nipple still remaining."

After satisfying himself of the state of the neck of the uterus, the medical attendant should next ascertain if the body of that organ be enlarged, by placing the finger up between the os uteri and pubis. In its unimpregnated state, the uterus will be felt soft and flaccid; if distended, a hard tumor will be distinctly perceived in this situation.—We may then proceed to the

Combined Examination.—"There is," says Dr. G., "a combination of the external and internal examinations, which, in thin persons, gives a very accurate knowledge of the nature of the tumor. For this purpose, the finger of the right hand is to be applied against the tumor which is felt in the vagina, and the left hand is to be applied on the outside of the abdomen, to the upper part of the circumscribed swelling. Now by alternately dressing the tumor up, by means of the finger in the vagina, and down, by means of the hand on the abdomen, the practitioner becomes certain that the tumor which is felt through the walls of the abdomen, is the same as that felt through the vagina; the most satisfactory proof that it is an enlarged uterus. This method is applicable as early as the fourth or fifth month."

Before giving a decided opinion, one other expedient should be adopted. It is well known that the fœtus is not closely embraced, but always floats in the liquor amnii. Let the patient then be placed in an erect posture, and then applying the finger (in front and a little below the os uteri) to the uterine tumor, push it gently upward; if the tumor

be a fœtus, it will follow the finger up and back again ,—next give it a sudden push upward; if a fœtus, it will leave the finger and again come down upon it,—a circumstance which will not occur in any disease of that organ. This is, in fact, the most conclusive part of the whole examination, and when made between the fifth and seventh month, and taken in connexion with the result of the preceding trials, can seldom leave the attendant in doubt. We regret that our limits will not allow us to give other views of the diagnosis proposed by Dr. G. Those we have offered, if attentively considered, cannot but prove highly useful to every medical practitioner.—*Bost. Med. and Surg. Jour.*

37. *Artificial Eyes.*—Dr. Scudder, the ingenious oculist, whose artificial eyes are said to have pupils which contract and dilate, and to wink and move in the same direction with the natural organ, is now at the Tremont House in this city. We have seen specimens of his ingenuity, and, after attentive examination, would recommend them with great confidence to those who are so unfortunate as to require such an appendage to the natural phisiognomy. The artificial shell which is made to imitate the natural eye, is fixed by Dr. S. directly to the ball, and consequently partakes of its movements, and allows the lids to close over it. This is what is called making an "artificial eye to wink and move with the real one in any direction."

As to the contraction and dilation of the pupil, few could expect any great power or extent of motion in the internal part of a solid lens of glass. By an optical deception, however, the pupil, though perfectly stationary, does *appear* to alter its diameter with every motion of the enamel. As the latter changes its direction, the former *appears* to dilate, or contract, and this, though these changes be ever so trifling — The manner in which this effect is produced, is as follows:—The pupil is represented by a black substance at the posterior part of a hemisphere of transparent glass, which occupies the place of the aqueous humor in the real organ. Around this substance the iris is represented,—not painted, but colored apparently in the glass itself. Thus viewing the black substance or pupil through a very convex lens, its size will vary according to the direction in which we look upon it. If we see it sideways, its size is greater than when the eye is cast upon it directly; and hence the apparent change in its size with every movement of the organ.

But further;—in some of the specimens we saw the edge of the pupil was indistinct, except in a strong light, and this indistinctness was produced by the deep shade of the inner edges of the iris. The effect of this is admirable. If we bring the eye to a strong light, the line of the circumference of the pupil is clearly distinguished: if now we remove it to a less powerful light, this line is not discerned, and being lost in the deep shade of the margin of the iris, the effect is an apparent increase of size, or, in other words, dilatation of the pupil itself. By this very brief and imperfect description, the general principles on which these machines are constructed may be learnt. Dr. S. has

doubtless brought the imitation nearer to the original than any one who has preceded him; and this meed will doubtless be accorded him in Europe, whither he intends going in a few months.—*Bost. Med. and Surg. Jour.*

38. *Mode in which the Poison of Lead is conveyed into the system.*—It was stated by Dr. Thompson, at a late meeting of the Westminster Medical Society, that, from a number of experiments and observations, he had been satisfied that none of the salts of lead are poisonous but the *carbonate;* and that where mischief had resulted from the use of the acetate or subacetate, the cause was the conversion of these into the carbonate. When exposed to the action of the air or of pure water, lead, as every one knows, becomes tarnished. This tarnish is not an oxydation, but the formation of a thin crust of the carbonate which is formed on the lead; and if this crust be scraped off and mixed with acetic acid, brisk fermentation accompanies its solution.

In view of these facts, we should caution the public against the use of lead pipes to conduct soft water which is to be subsequently conveyed into the human stomach; and much care should be used in avoiding, for culinary purposes, rain or snow water which has passed over roofs or spouts lined with lead. Rain, snow, or spring water, are mentioned; for it has been ascertained by Dr. Christison, that the presence of neutral salts and other foreign ingredients held in solution by water, impairs its power of thus acting on the lead; and this is the reason why soda water, passing through pipes of this material, is so seldom poisonous. This caution is particularly necessary for persons who reside at a distance from the seaboard, and particularly in sandy regions, where most of the water used in cooking, &c., is comparatively destitute of these ingredients As for Boston, there can be little apprehension on this score; we can truly say as Dr. Johnson, when treating of the same subject, says of London, "if purity of water be a dangerous property, this metropolis is as secure as if the inhabitants drank nothing but nectar."—*Bost. Med. and Surg. Jour.*

39. *Division of the Submaxillary and other Nerves.*—Sir—I observe in your fasciculus for February last, the description of an operation performed by Dr. Warren, for excision of the submaxillary nerve, extracted from the Boston Medical and Surgical Journal. This mode of operating appears truly formidable, and is probably that which the late Dr. Haighton had in view, when he pronounced the division of this nerve impracticable.

A much simpler, safer, and easier mode of accomplishing the division of this nerve, where it enters the canal of the inferior maxillary bone, is, to make an incision, with a scalpel, from within the mouth to the extent of an inch; through the mucous membrane and cellular tissue connecting the pterygoideus internus muscle, to the ramus of the bone, parallel and close to the inner or mesial surface of the coronoid process immediately behind the dens sapientiæ; then to make a round-shaped gum lancet, and carry it backwards in a line continuous with

the crown of the molar teeth, having the cutting edge at right angles to the bone, and divide the nerve on the bone. The pain experienced on the division of the nerve, at once indicates that the proper organ has been cut. As the internal maxillary artery ascends to the bulbous process of the superior maxillary bone, it cannot be wounded, excepting through ignorance or carelessness; but, even if it were, a piece of dry sponge might be easily inserted to stem the haemorrhage. The gustatory branch of the nerve could scarcely be injured. The dental artery must be wounded, but this is so small as to be of no moment, and, if morbidly enlarged, dry sponge would compress it. I have now performed this operation on four patients for neuralgia of the mental nerve, with perfect success, having previously attended to the chylopoietic viscera, and then tried the various antispasmodics and subcarbonate of iron; also the different counter-irritants, even the moxa, and lastly, the division of the nerve as it emerges at the mental foramen. Or, according to your own showing,—"after the local symptoms from morbid associations or change of structure, had continued after the constitutional derangement from which they originally emanated, had been rectified—and the consequence had survived the cause." My first case was published in the Edinburgh Medical and Surgical Journal for October, 1821.

Thus there would appear to be a material difference between the division of the trunk of a nerve, where it is protected from the vicissitudes of atmospherical influence by muscular and other soft coverings, and the division of the same nerve, where it is exposed to the alternations of the weather, as far as relates to the permanent salutary result. It is well known, that in neuroma supervening to amputation, the excision of the tumour or tumours, proves a more permanent or radical cure than a secondary amputation, also in neuralgia following the same operation, excision of the nerves does the same, and evidently in consequence of excision preventing the interesting junction of the nerves, as well as the production of the numerous delicate filaments supplying the cicatrix of the stump. This has been satisfactorily described by Larrey, in his late valuable work 'Clinique Chirurgicale,' and also by Descot, in his interesting 'Dissertation sur les Affections Locales des Nerfs.' For the same reasons, the excision of a portion of a nerve must be a more effectual cure than simple division of the same.

If this view of the operative department of the pathology of nerves be found to be correct, it would follow, that the division of the infra-orbitary nerve, where it enters the osseous canal in the floor of the orbit, would prove more availing, than its division at the infra-orbitary foramen on the cheek.

This might be easily accomplished as follows:—let an incision about an inch long, of a curvilinear figure, to correspond with the circular shape of the orbit, be made at the outer canthus of the eye, the centre of which shall be opposite the outer commissure or angle of the eyelids, or rather the superior margin of the zygoma. This incision is to be deepened by cutting close to the osseous wall of the orbit,

until the instrument reach the spheno-maxillary fissure, when it is to be laid aside, and a round shaped gun lancet inserted in the wound, with its cutting edge at right angles to the floor of the orbit, and the nerve divided as it runs in the osseous channel. In some, this is an open, while in others, it is a shut or entire canal; but, in all, the parietes are so delicate as to be easily cut across. A portion of the infra-orbitary nerve, at its emergence from the infra-orbitary foramen, could not be removed, in consequence of its division into so many minute filaments; neither could this be accomplished within the orbit.

The supra-orbitary or frontal nerve may be also divided within the orbit, nearly an inch from the superciliary ridge, by first ascertaining the superciliary foramen or notch, which is done by drawing a perpendicular line from the second bicuspis at right angles to the area of the crowns of the teeth; secondly, by making an incision about the fourth of an inch, parallel and close to the superciliary ridge at the foramen, through the integuments, orbicularis palpebrarum muscle, and ligament of the superior tarsus; thirdly, substituting for the straight bistoury or scalpel, a probe-pointed bistoury, which is to be inserted deep in the orbit close to the bone, and with which the nerve is to be divided by cutting upwards on the bone, in the direction from the inner to the outer canthus, carefully guarding against injuring the superior oblique muscle on its inner or mesial aspect. A portion of this nerve may be excised either within or without the orbit: within, as just directed, combined with searching for the nerve at the superciliary foramen, and after its division, seizing hold of it with the dissecting forceps, and removing the insulated or detached part. As it sends off minute filaments on its emergence from the orbit, the removal of a portion without the cavity, would not hold out a prospect of so permanent a cure. JOHN LIZARS.—*Medico-Chirurg. Review.*

40. *A Case of Labour in which the Placenta was delivered some time before the Fœtus.* By Dr. Caleb W. Cloud, of Lexington, Kentucky.—On the 3d of February, 1830, at 11 o'clock P. M. I was called to visit a woman, who was said to be in labour. I found her in considerable pain, with great uterine hæmorrhage; she said her labour was premature, and that she was in the eighth month of her pregnancy. On examination per vaginam, I found the os uteri considerably dilated; one knee of the fœtus, and a part of the placenta could also be distinguished. The pain subsiding, I gave her syrup of rhubarb and laudanum, and left her for the night.

At 8 o'clock A. M. of the ensuing day, I saw her again, when the pain was slight, though the hæmorrhage continued. At 12 o'clock M. the uterine pain was increased and the bleeding had become quite alarming. On examining again I found the membranes protruded, which were soon afterwards ruptured, when a large portion of the placenta together with the umbilical cord, presented. Pulsation was felt in the cord, but no portion of the child could be reached

In this situation, I gave her fifteen grains of ergot, and after an interval of twenty or thirty minutes, the same quantity was repeated.

In half an hour from the exhibition of the last dose, the placenta was expelled, and the hæmorrhage immediately ceased. Still the child could not be felt, per vaginam, and I had some apprehension at the time that it might have escaped into the cavity of the abdomen, by a rupture of the uterus. The woman, however, being a good deal fatigued, was permitted to rest for two hours or more; when, there being no return of pain, or descent of the fœtus, I gave her fifteen or twenty grains of ergot, and repeated the same quantity in twenty minutes. Some pain now came on; but, being slight and ineffectual. I introduced the hand and dislodged the child from the os pubis, on which it rested, inclining to the right side: after this I was enabled to reach it with the forceps, (the breech presenting,) and in this way it was delivered.

After delivery the woman complained of great debility, with sick stomach and vomiting—these, however, were soon relieved and she recovered speedily. The child was well formed and of the usual size. The mother is about 37 years of age; this was her eighth pregnancy, all the preceding labours being natural; and she knows not of any cause to have produced premature or preternatural labour in the present case.—*Transylvania Jour. of Med.*

41. *Observations on a Peculiar Kind of Traumatic Delirium.* By M. Helis.—The object M. Helis has in view, is to illustrate by cases the advantage of the treatment recommended by M. Dupuytren, which we have ourselves seen employed with the best effect.

Case 1.—*Delirium after the operation for Sarcocele.*

M D. R., twenty five years of age, of a nervous temperament, was operated upon for sarcocele of a very large size. in 1817. The day after the operation he was restless, and very much alarmed lest hæmorrhage should occur. The succeeding day his agitation had much increased; the slightest word or movement produced the greatest degree of excitement; the least sensation redoubled his apprehensions. Still his progress was satisfactory. He soon complained, however, of pains in his limbs and chest; his eyes glistened, he breathed quickly, eagerly demanded food, and was determined to rise from bed. His mind wandered; he repulsed those who were the most attentive to him, and called loudly for his family; his whole body was incessantly in motion. His cries, the appearance of his eyes, the fixed state of the pupil, his face covered with sweat, and his calm and regular pulse during all his agitation, convinced M. Dupuytren of the nature of the case. Particular attention, however, was paid to the state of the chest, as the patient complained of a fixed pain in that part.

When it was ascertained that he was laboring under no pulmonic disease, an enema with six drops of laudanum was immediately given; and the patient was ordered to be kept perfectly quiet, and undisturbed by friends. In an hour after the administration of the enema, M. D. R. ceased to ramble, and fell into a sound sleep, which lasted for several hours. The cure was complete in twenty-five days.

Case 2.—*Delirium after Luxation of the Femur.*

A mason fell from a scaffold, and luxated the left femur. He was carried immediately to the Hotel Dieu, and the next day the luxation was reduced with the utmost facility. The patient was dreadfully alarmed at the apparatus which was employed, and could not believe himself so speedily cured. On the following day he was extremely agitated. The eyes were unnaturally brilliant, and turgid with blood, his face red, and covered with sweat. He cried out incessantly, and endeavored to break the bandages by which his limb was secured. In the midst of this mental derangement, the pulse was full, regular, and natural in number; temperature of the skin not increased.

The sister of the ward, who was well accustomed to these symptoms, ordered an enema with ten drops of laudanum in it to be immediately given; and no other remedy was necessary to restore the patient to reason.

Case. 3.—*Delirium after the Fracture of a Rib.*

Langlois, a mason, was admitted into the Hotel Dieu with fracture of a rib. A tight bandage was placed round his body. From the facility with which such accidents are usually cured, but little attention was paid to this patient; but on the third day he was attacked with delirium, which continued unabated. He threw himself into various positions: all his muscles were in a state of continued tension; eyes very brilliant; skin covered with sweat; pulse natural. He fancied he saw images dancing before him in the air, and that various experiments were being tried upon his bed.

As this man was of a full habit of body, he was first bled, but without relief. An enema with ten drops of laudanum was then given, and a slight degree of calmness succeeded. The next day this dose was doubled, without advantage. His cries and constant restlessness were now so annoying to the other patients, that he was put in a ward by himself, and forty drops of laudanum were given in an enema, and the delirium speedily subsided.

Case 4.—This patient had attempted to commit suicide by cutting her throat. On the second day after the attempt he became delirious, and it was necessary to restrain him by the strait-waistcoat.

An anodyne was first given by the mouth, with but little effect; but an enema with a few drops of laudanum quickly restored him to reason. On the fourth day the wound assumed a bad appearance; the delirium returned, and was again successfully opposed by the same treatment.

Case 5.—This patient was operated upon for popliteal aneurism. He was of a plethoric and athletic constitution, and a free bleeding had been practised, to guard against accident after the operation. He appeared to be indifferent to every thing that was done, and scarcely conscious of what was passing around him. On the fifth day he was attacked with furious delirium, without fever. The symptoms were the same as those detailed in the previous cases. An Anodyne enema was given with the most complete success. The liga-

ture, however, came away from the femoral artery prematurely, and the patient expired on the fortieth day, after many attempts had been made to arrest the hæmorrhage.

Case 6.—In this case the patient had attempted self destruction by cutting her throat. Delirium afterwards occurred, without fever or symptoms of inflammation. Anodynes, internally given, were effectual in relieving it.

M. Helis is not aware that any author has paid particular attention to this species of delirium. He has only found one example of it in books. Many surgeons have, indeed, spoken of the violence of some patients after operations, and of their tearing away their dressings; but none have inquired into the cause of this kind of insanity, or have endeavored to relieve it by any other means than coercion. The danger of so violent kind of delirium after various accidents and operations, must be evident, and it must be a source of much gratification that we possess a remedy which is almost certain in its operation. M. Helis imagines that it may generally be possible to predict the occurrence of this mental disturbance, either from the nature or duration of the operation, the character of the patient, his moral energy or physical disposition. There are some symptoms from which delirium may be almost certainly anticipated. If, a few hours or one or two days after a fracture, an attempt to commit suicide, or any operation, the patient appears unusually gay, talks much, has a quick expression of the eyes, gives short answers, moves quickly and without any obvious motive; if he affects great courage and resolution, the surgeon should be upon his guard. The slightest excitement should be avoided. The patient should be kept in the most complete repose, away from light, noise, or unnecessary visits, or his symptoms will quickly become more decided. He will soon begin to talk unconnectedly; at one moment his language will be mild, at another violent; his loquacity will be incessant. In this state the patient is dangerous to others and himself. In one case M. Helis mentions, a man rose in the middle of the night, and beat many of his companions with his crutch, and would probably have destroyed some of them, if he had not been secured. In some instances, patients have precipitated themselves from a window, or have destroyed themselves in a still more horrible manner.

The most remarkable circumstance in the midst of so much disturbance of the mental faculties, is the tranquil state of the circulation, and the absence of febrile symptoms. The patient is furious, has lost all command of himself; his face is bathed with sweat, his eyes are unusually brilliant, he cries out vociferously, and might be thought to be labouring under the most ardent phrenzy; but his pulse is calm and regular, and the state of the skin removes all suspicion of inflammation, It is, in fact, a true mania, differing only from ordinary cases in its duration. M. Helis has rarely seen the attack last longer than five or six days.

The mode of exhibiting it is as simple as it is efficacious. It consists of a few drops of laudanum administered in a cylster. It is this

remedy which M. Dupuytren constantly employs, and it is far preferable to every other. Five or six drops of laudanum, given in a small clyster, produce more effect than thrice the quantity taken by the stomach. This fact may be explained by the sympathy which unites the brain with the rectum. As a proof that this sympathetic connexion is not imaginary, we may cite various cases of pains in the head, delirium from constipation, the clear and active state of the mind which follows a required evacuation from the bowels, and instances of hemicrania that have resisted every other treatment, and which have yielded, as if by enchantment, to irritants placed in the rectum. But a physiological explanation may be adduced. The stomach, destined to elaborate the first element of nutrition, is endowed with a digestible power, and with secretions which alter more or less every substance which comes in contact with it; and many medicines introduced into the stomach are ineffectual, because they are mixed with the food, or their powers are weakened by the gastric juice. Hence various medicines, particularly of the vegetable class, are uncertain in their operation, or totally inefficacious, with many patients. The rectum, destined to be the reservoir of the residue of digestion, absorbs, but does not digest, and it will easily be conceived that medicines which are introduced in it, provided they are not expelled, will act with more certainty than if they were administered by the stomach.

The treatment recommended by M. Helis in cases of traumatic delirium, has been practised with much success in several of the London hospitals, but we know it is not yet duly appreciated by the profession at large. Two instances have occurred to us in which anodynes had been given by the mouth without benefit. In both, the exhibition of an enema, with fifteen drops of laudanum, speedily quieted the turbulance and incessant loquacity of the patients; a calm sleep followed, and health was soon restored.—*London Medical and Physical Journal.*

42. *Biographical Notice of Soemmering.*—This distinguished anatomist and physiologist died at Frankfort, March 6th, in the 76th year of his age; and the following notice of his earthly career is contained in the French *Journal Hebdomadaire.*

From the character of his writings, and the solid basis of his reputation, Soemmering may be looked upon as one of the fathers of science. To the Germans, indeed, he appeared in the light of a contemporary and fellow-laborer; but to us, who have only known him in his works, he seems rather to have belonged to another age. We associate the idea of him with that of Albinus, with whom he possessed so much in common.

Samuel Thomas Von Soemmering was born at Thorn, the 25th of January, 1755. He received the degree of Doctor at the University of Gottingen, in April, 1778, and from that period began to establish in Germany that reputation for science which continued to increase with his works. The inaugural dissertation of Soemmering was entitled

Dissertatio de basi Encephali, et Originibus Nervorum Cranio Egredientium." Already, in this first and important work, appeared that admirable activity of investigation, and astonishing power of invention, which always characterized the talent of Soemmering. In 1779 he published a volume, in quarto, on the Functions of the Lymphatic System in Health and Disease, and on the application to be made of such knowledge to the purposes of practical medicine.

About this period, so fruitful in moral and political discussions, many philosophers, and among others, Raynal and Condorcet, were wont to plead the cause of the negroes, whose emancipation they demanded in vehement and systematic declamations. Attention was directed to this question from every quarter, and it was on this occasion that Soemmering published his Treatise on the Physical Differences which distinguish the Negro from the European. The first edition of this work was published at Mayence, in 1784, and was followed by another, which appeared at Frankfort, in 1785. In the same year our author produced a Dissertation on the small Calculi which are found in the Pineal Gland and its immediate vicinity. Always interested about the brain, Soemmering published a work on the Decussation of the Optic Nerves, and in 1788, one on the Brain and Spinal Marrow. In the interval between these two publications, he composed a Memoir on Crises and Critical Derangements. Another, in 1788, made much noise in Germany and France, perhaps chiefly owing to the nature of the subject; it was upon the pernicious Effects of Corsets. The numerous discoveries which he had made on the structure of the brain, were only known to the Savans, but no sooner did he write about stays, than all Europe became familiar with his name!

The cabinet of Cassel contained a magnificent collection of monsters. Soemmering studied with care all the curious examples which were there collected, and, in a treatise on the subject, he described the singular cases which he had remarked in this museum. Even here he contrived to be original, in a description which appeared little calculated for the display of talent. The most able part of these observations is that which relates to acephalous and polycephalous monsters. In 1791 appeared a work on the Cure of Calculus; and in 1795, he composed, in conjunction with T. Wentzel, a very interesting Dissertation on the bones of Gouty Persons.

It was maintained by some, that fracture of the vertebræ was always mortal: Soemmering combatted this opinion; and, in a work which appeared in 1793, he proved, by facts and reasoning thereupon, that even in the cases where chronic disease of the vertebræ has produced their entire destruction, a chance of safety may remain.

We have not yet spoken of one of the works of Soemmering which has obtained the greatest success, and not without cause: it is his Manual of the Structure of the Human Body. A great number of editions, published at different times, attest the merit of the work. In some places, indeed, where the art of multiplying editions has become an integral part of literary merit, this would have been no deci-

sive proof; but in Germany, where they do not recompose a book till the former edition has been sold, the repetition of the publication generally shows that the work is meritorious. The one in question is remarkable for the extreme fidelity of the descriptions, as well as for the number and variety of the facts which it contains. Some parts deserve higher commendation; such are the osteology and the description of the brain and nerves. The last, indeed, was always a favorite subject with Soemmering, and among his later works upon it, was one entitled, "On the Organ of the Soul." In this he maintains an opinion which has not the merit of novelty, nor the solidity of his general doctrines; he holds, namely, that the soul has its seat in the humidity which, during life, lubricates the ventricles of the brain. In 1811 he gave an account of some interesting researches regarding the fluid in the nerves, and on its uses and connexion with the nutrition of these organs in the healthy and diseased conditions. Nor must we omit to mention, in relation to this part of the subject, his tables of the base of the brain, in which are represented with great beauty, and we believe with extreme correctness, the principal differences which exist between the encephalon in man and the lower animals.

The Society of Gottingen had published a programme on the causes and prevention of hernia. Soemmering replied to this in a treatise on Umbilical and Inguinal Ruptures. * * * In the last of these he advanced the opinion now generally adopted, that umbilical hernia never forms in adults through the umbilical cicatrix itself, but in the linea alba in its neighborhood. The works of Soemmering almost defy enumeration in a notice such as this, but we must add to the list his plates of the Ear, the Eye, and Organs of Voice, and those of the Human Embryo. It it this last which has led the way to the important researches in embryology, which have since been carried on by the Germans,—Baer, Meckel, Tiedemann, Carus, and others.—Soemmering, however, was the first who gave an exact figure of the embryo, and of the successive gradations of its development from the fourth week after its conception.

The last work of this illustrious author was on the Fatal Diseases of the Bladder in Old Persons, the first edition of which appeared in 1809, and a second in 1822, being, as we believe, the close of Soemmering's professional writings.

In 1828, Soemmering attained the 50th year of his doctorate. It is a general usage in Germany, to celebrate a kind of jubilee in honor of those who have grown old in scientific labors and fame. On this occasion, all the most distinguished men in Germany, hastened to render homage to the aged philosopher.—*Bost. Med. and Surg. Jour.*

43. *Obituary of Dr. John Doane Wells.*—It was our intention to have published in this number of the Journal, a sketch of the life of Dr. Godman. Unforseen circumstances have prevented the accomplishment of that object. Shortly after the death of Dr. Godman, the Profession of Medicine sustained an equal loss in the death of John Doane Wells, M. D., recently elected Professor of Anatomy in the Uni-

versity of Maryland, who died on the 25th of July, at the early age of 31 years, in the morning of life, and at the opening of the most brilliant professional prospects, that youthful ambition could aspire to.

He was born March 6th, 1799, gratuated at Harvard College, in 1817, and received the degree of Doctor of Medicine in 1820. In 1821, he was appointed Professor of Anatomy and Surgery in Brunswick College, in Maine. The same year he visited Europe, where he devoted himself particularly to anatomical pursuits. He returned to the United States in December, 1822, and commenced his first course of lectures in February, 1823. In 1826, he was unanimously elected Professor of Anatomy in the Berkshire Medical Institution, at Pittsfield, Mass., and as the course of lectures were to be delivered at a different period of the year, he retained the chair in both institutions.

In the month of October last, he received an intimation of his appointment as Lecturer on Anatomy, in the Maryland University. His course at Pittsfield was not yet completed, although, in anticipation of this appointment, he had been lecturing two, three, and sometimes four times a day. Having been honorably discharged from this institution, he hastened to Baltimore, although exhausted by his severe labour at the former place.

Having completed his course of Lectures in Baltimore, he set out for Brunswick, in very unfavorable weather, and arrived there with every evidence of extreme debility from over exertion. In spite of the remonstrances of his friends, he persisted in lecturing. He would leave his bed to be carried to the college, and having delivered his lecture, be carried home again, and keep his bed for the remainder of the day. In a week he was compelled to discontinue his labors. His constitution had received a shock from which he never recovered, and after great and protracted suffering, he died in July.

We copy from the Boston Med. and Surg. Journal, the following account of his moral and intellectual character, regretting that it is not in our power to insert the whole memoir:

"The friends of Dr. Wells do not claim for him uncommon greatness or originality of mind; although all must admit that his talents were of a high order. He was particularly distinguished for quickness of perception; and if not calculated to strike out new paths in the fields of science, he was ready in discerning and embracing important truths, when once presented to his mind. His memory was ready and retentive, and the correctness of his judgment generally led him to the adoption of just opinions. He had rendered himself well acquainted with the most approved writers in our profession. His mind was not crowded with a knowledge of useless and obsolete opinions, but it was well stored with useful learning, which he possessed the happy faculty of turning, on fit occasions, to a good account. As a lecturer, we are not able to speak of him from personal knowledge. Those who have known him in that capacity, speak of him as possessing great powers. His voice was clear and strong, and his utterance distinct; his countenance animated and full of expression; his command of language uncommonly great; his acquaintance with his subject very thorough; and

his active and collected mind wielded with great skill the materials with which it was enriched. His zeal in his profession was unquenchable, and it urged him on with a power, which neither languor, nor pain, nor sickness, could in any degree subdue. Such was his love for lecturing, that during the intermissions, in his visits to his friends in this city, he would often express to them a longing desire for the time to return when he could engage in it.

It was his moral qualities united to his intellectual powers which constituted the charm of his character. It was these that rendered him one of the most interesting of men; that endeared him so much to his friends, and won the confidence and esteem of all who became acquainted with him. It was these qualities that made him the good son; the affectionate brother; the faithful friend and the pleasing companion, and which cause his death to be so keenly felt through a large circle of acquaintance. In his disposition Dr. Wells was uncommonly benevolent and affectionate. An unkind word never escaped his lips; an unkind feeling never found a place within his bosom. He was susceptible of all the tender sympathies of life. He knew how to impart happiness to his friends, and to cheer the drooping spirits of the downcast stranger.

Should we be asked what was the most prominent trait in his character, we should be unable to answer. No one quality stood pre-eminent beyond the rest, neither was there any striking defect which his friends had to lament as detracting from the beauty of the whole. His mind was remarkably well balanced, and presented every part in beautiful and harmonious proportions. In his domestic relations his duties were performed with exemplary fidelity; his friendship was ardent, sincere, and generous; his benevolence free from ostentation, and tempered with judgment; and his intercourse with the world was marked with honor and integrity. His mind was well disciplined, and his appetites, passions, and affections, were subjected to the higher powers of reason and conscience, and rendered subservient to the great purposes of his moral and intellectual being. His learning was free from pedantry, and amidst all the caresses and flatteries of his numerous friends and admirers, he retained the native modesty of his disposition. Some may be inclined to attribute his success in life to fortuitous circumstances; but such was the activity of his spirit and the energy of his purpose, that, under circumstances much less propitious, he would have attained to distinction. He was ambitious,—but his was not that sordid ambition which terminates in self-aggrandizement and self-promotion; it was of that lofty and honorable character which aims at acting well and promoting the great interests of society.

From what has already been said, it might be inferred that the mind of our friend was no stranger to those holy influences and affections which unite man to his Maker, and fit him for the invisible world. His religious principles were not the mere result of habit and early education, but were founded in the honest convictions of his mind. Religion was with him a practical principle which had become intimately blended with his soul, and which purified and sanctified all his affec-

tions. It was this principle that supported him in life, and sustained him in death. It was this that preserved him uncorrupted amidst the flatteries and enticements of his prosperous course; and it was this that supported him under the trials and sufferings of a lingering sickness. There were periods during the confinement which preceded his death, in which his character exhibited a moral sublimity which it was delightful to witness.

Such was the life and such the death of our valued friend. No one ever had greater cause for wishing to live, and no one could be more ready to die. During his life he was the comfort and pride of his friends, and in his death he has left them full of the hope and consolation that he has gone to inherit a crown of everlasting glory."

II. Original.

Lithontrity.—In a Letter from the Senior Editor of this Journal, dated Philadelphia, Dec. 2d, 1830.

"A month has now elapsed since my arrival in this *emporium* of the Medical Sciences. I have met with many learned and able physicians, surgeons, and paturalists, but as yet have not been made acquainted with any thing new or particularly interesting in the profession. A longer sojourn may, perhaps, put me in possession of unpublished discoveries, improvements, or projects, worthy of being laid before our readers.

Meanwhile, in continuation of the efforts already made to direct their attention to the Lithontrity of Civiale, as a substitute for Lithotomy, I will inform you and them, that a new attempt to introduce it into the United States is now in progress.

Nearly a year and a half ago, Dr. Alban G. Smith, of Danville, Kentucky, determined to visit Paris, and become the pupil of Civiale, for the sole purpose of studying Lithontrity, and having made himself familiar with every thing relative to it, is now in this city on his return. Last night he showed me his instruments, and they certainly look promising, in reference to the object in view. He, himself, is fully convinced of the great utility of the operation, and feels sanguine in his expectations of introducing it into the United States. He is now on his way home, and will, at no distant time, select a situation for the scene of his efforts. Being from the West, I hope he will remain in the West.

At my request he has furnished me with the following notices relative to Lithontrity, which, from their authenticity and recent date deserve insertion in the Journal."

Case 1. A man aged 26 had been laboring under the disease five years. On his admission into the hospital he was put upon low diet ten days, and had the catheter introduced daily. M. Leroy operated on Saturday, and took up the stone at the first attempt. The patient, so far from complaining, said it did not hurt him at all; and upon rising from the table he passed his urine with about a thimble-full of the stone. Next morning on visiting him, he said he was very comfortable, and continued so until the Saturday following, when he was operated upon again without complaining. The stone was found in two fragments, one of which was broken up; next morning he showed a considerable portion of the stone that he had passed during the night, which he said hurt no more than when he urinated previous to the operation. On the next Saturday he was operated on again, and passed nearly all the balance of the stone during the night. He complained of some soreness in the morning. In three days it ceased to pass, and he was discharged perfectly cured.

Case 2. Another case of a man sixty years of age, was admitted at La Chartre, with a stone about 12 lines in diameter. The largest sized instrument was introduced, the stone was soft and easily broken with the hand. After each operation he passed a considerable portion of stone; he walked to and from the hospital to be operated upon, and complained but little during the operation. It required six operations to relieve him. I saw him some weeks afterwards, when he said he had since had no symptoms of the disease.

Case 3. A child 7 years of age was operated on with one of two and a half lines in diameter. It was necessary to enlarge the meatus urinarius with a bistoury. The introduction of the instrument was very painful, and the child contracted its bladder very much, but the stone, about five lines in diameter, was seized without difficulty and broken down. The patient

complained very much during the withdrawing of the instrument. During the night four large pieces were discharged with the urine. He was operated on four times more with less pain than in the first attempt, and was discharged cured.

Case 4. A child aged four years and six months was operated on with an instrument of two lines. The bladder was very small, and the stone, five or six lines in diameter, was grasped with difficulty. The rectum was inverted by the cries of the child. During the night eight grains of the calculus were discharged, and by three more operations, which were attended by nothing remarkable, the patient was entirely relieved.

Remarks.—It is not expected that this operation will ever come to be very generally employed by surgeons. On the contrary, the number of operators will no doubt always be smaller in proportion than that of those who now perform lithotomy. The practice necessary to enable an individual to operate successfully, is much greater than is requisite for that operation, while the facilities for acquiring the necessary skill, are much more limited. There are but two successful operators in Paris, Le Roy and Civiale. The former of whom operates in La Charite and Hotel Dieu, the latter has a ward in Hospital Neckar in which he receives his patients. There are but two also in England, one of whom is a foreigner.

With these difficulties in the way of its coming into general use with the profession at large, there can be no doubt of its having in the hands of an expert and practised operator, many advantages over lithotomy.

1. It does away all fear of a dangerous and bloody operation, and gives to the patient that confidence so favorable to a happy recovery.

2. The position of the patient during the operation is neither painful nor constrained.

3. The pain of Lithontrity, in favorable cases, and in the hands of prudent and well experienced operators, is trifling. If the pain at any one time should be very severe, the operation may be postponed, till the system is in a more favorable condi-

tion, or it may be often repeated in short sittings, to suit the condition of the patient.

4. If the operator be prudent and skilful, the operation is not liable to any dangerous accidents. The patient can generally attend to his ordinary business, and with each successive operation, the situation of the patient is improved and the pain diminished.

5. If it be urged that in many cases the operation is followed by unpleasant consequences, it is admitted that much practice is necessary to qualify the surgeon to operate, and if the attempt should fail from the want of the necessary preparation, the ill success is certainly not to be laid to the fault of the operation.

6. There are doubtless cases in which the operation cannot be resorted to. These cases, however, it is to be borne in mind, are almost eqnally unfavorable for lithotomy. During my attendance on the Parisian Hospitals, it fell to my lot to witness thirty operations with this instrument, all of which terminated favorably ; while of all the patients upon whom lithotomy was performed, on account of the impracticability of using this instrument, but one recovered. It is also to be remembered that the impracticability of using this instrument arises in many cases from the delay produced by the fear of the knife. There can be no doubt, therefore, that when the character of this mode of operating shall be so established, as to induce an early resort to it, it will be found applicable to a much larger proportion of cases. It may not be improper here to mention that the subjects of the operation met with in the United States, are generally more favorable to its success than those which are met with in the European Hospitals. It will therefore, no doubt, be a safe estimate to say that three fourths of the patients of this country are proper subjects of this instrument. It may not be improper to mention as an evidence of the estimation in which the operation is held in Paris, that it is adopted in all the hospitals in that city ; and the National Institute have recommended to the government, to appoint a distinct Lithontripteur to each hospital.

A. G. S.